

VICTORIAN YEAR-BOOK

FOR

1888-9.

(SIXTEENTH YEAR OF ISSUE.)

BY

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P R E F A C E .

THE present volume, which completes the *Victorian Year-Book*, 1888-9, deals mainly with Vital Statistics, Production, Law, Crime, etc., Social Condition, and Defences.

It also contains Appendices, which embrace—besides tables of Australasian Statistics and Tariffs—interesting accounts of the Educational Systems of the various Australasian colonies, specially prepared for this work, at my request, unofficially, by the Educational Department of each colony. Thanks are due to the officers presiding over the Departments in question for these valuable contributions to our knowledge of Educational matters, as applied to the colonies of this group.

The Index to the first volume having been published therewith, that at the end of the present volume relates to this volume only.

HENRY HEYLYN HAYTER,
Government Statist.

Office of the Government Statist,
31st Decémber, 1889.

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ERRATA TO VOLUME I.

Page 344, paragraph 528. The following should be substituted for the latter portion of this paragraph :—" At present, vessels of 1,500 tons, drawing 19 feet 6 inches, commonly get to the Melbourne wharves at ordinary tides, and those drawing over 20 feet, at spring tides. The minimum depth at low water spring tides is now 19 feet, the depth having been altogether increased 6 feet since the formation of the Trust."

Page 366, number of miles of telegraph wire in South Australia, 1883 to 1887, *read* "8,294," "9,421," "9,773," "10,310," "11,008," *instead of* "8,824," "7,833," "9,378," "8,771," "9,388," respectively.

Page 462, Table XII., *read* "11,448" miles of telegraph wire in South Australia, *instead of* "9,775" miles. This will also alter the totals of same column.

VICTORIAN YEAR-BOOK, 1888-9.

PART V.—VITAL STATISTICS.

1. The marriages returned to the Registrar-General in 1888 numbered 8,946, as against 7,768 in the previous year. The excess in favour of 1888 was thus 1,178. Marriages,
1888.

2. More marriages were returned in 1888 than in any previous year. The number returned annually had been almost stationary during the seven years prior to 1880, but in that year an advance was made which has been more than sustained since. In 1882, for the first time, the marriages returned exceeded 6,000; in 1884, for the first time, they exceeded 7,000; and in 1888, for the first time, they exceeded 8,000, and, in fact, closely approached 9,000 *. Marriages,
1888 and
former
years.

3. The proportion which the number of marriages bear to the total population is generally called the marriage rate. This for many years has been declining in Victoria, for, whilst in the three years prior to 1863 it was above 8 per 1,000 of both sexes, and all ages; from 1863 to 1865 it was between 7 and 8, and between 1868 and 1878 it was between 6 and 7 per 1,000. It reached its lowest point, 5.98 per 1,000, in 1879; then gradually revived, and in 1888 amounted to 8.42 per 1,000, this being the highest rate in twenty-nine years. The following table gives the number of marriages and number of persons married per 1,000 of the population during each of the twenty-nine years ended with 1888:— Marriage
rate.

* For the number of marriages during each year since the first settlement of Port Phillip, see Statistical Summary of Victoria (first folding sheet) *ante*.

ANNUAL MARRIAGE RATE, 1860 TO 1888.

Year.	Per 1,000 of the Mean Population.	
	Number of Marriages.	Number of Persons Married.
1860	8·15	16·30
1861	8·21	16·42
1862	8·26	16·52
1863	7·51	15·02
1864	7·77	15·54
1865	7·36	14·72
1866	6·76	13·52
1867	6·97	13·94
1868	7·03	14·16
1869	6·89	13·78
1870	6·63	13·26
1871	6·37	12·74
1872	6·36	12·72
1873	6·50	13·00
1874	6·33	12·66
1875	6·33	12·66
1876	6·21	12·42
1877	6·31	12·62
1878	6·20	12·40
1879	5·98	11·96
1880	6·22	12·44
1881	6·79	13·58
1882	7·09	14·18
1883	7·43	14·86
1884	7·73	15·46
1885	7·72	15·44
1886	7·84	15·68
1887	7·62	15·24
1888	8·42	16·84
Mean of 29 years	7·07	14·14

Marriage
rate at
various
periods.

4. It has been shown, upon more than one occasion,* that the frequency of marriage is not dependent upon the numbers of the total population, still less upon the number of marriageable women, but almost entirely upon the number of marriageable men the community contains, the tendency of whom to marry is modified by their habits and occupations, and upon the view they take of their future prospects. Thus men have a greater tendency to marry in prosperous than in dull times, and the men of a rural, and especially of an agricultural, community have a greater tendency to marry than those of an urban one. To demonstrate this, the following table has been constructed,

* See *Victorian Year-Book* 1879-80, pages 103 and 104 ; same work, 1880-81, pages 199 and 200 . and same work, 1881-2, pages 165 and 166.

showing the proportion of marriages to the population, to the number of single men and to the number of single women, in each of the last five census years :—

PROPORTION OF MARRIAGES TO POPULATION* AND TO SINGLE MEN AND WOMEN, 1854 TO 1881.

Year of Census.	Exclusive of Chinese and Aborigines.					
	Population.	Number of Marriages.	Proportion of Marriages per 1,000 of the—			
			Population.	Marriageable Men.†	Marriageable Women.‡	
1854	234,361	3,696	15·77	52·16	245·04	
1857	383,668	4,465	11·64	46·79	169·66	
1861	513,896	4,528	8·81	42·34	122·36	
1871	712,263	4,715	6·62	52·43	72·11	
1881	849,438	5,732	6·75	57·40	48·02	

5. The numbers in the last column but two, and those in the last column, show such a falling-off that, if the proportion that marriages bear to the total population or to the number of single females were to be accepted as an index of the prosperity of the community, an alarming amount of depression would be indicated. The figures in the last column but one, however, tell a very different tale, and exhibit just such fluctuations as might have been expected from the changes which took place in the circumstances of the population between the different periods. Thus, in 1854, there was a very large influx to the colony of single adult males, some of whom brought capital with them, which they saw, or thought they saw, every prospect of speedily increasing, whilst others actually did make money very quickly, and, consequently, the proportion who married was high, but, doubtless, not so high as it would have been had it not been for the discomfort of living in tents and other privations incident to life on the early gold-fields, to which a large portion of the community was then subjected. By 1857, immigration had for the time been overdone, the result being that the gold obtained was very much less in proportion to the number of miners at

Reasons for fluctuations in marriage rate.

* The populations in this table are those returned at the respective censuses, the Chinese and Aborigines being excluded; and the marriages are those (exclusive of marriages of Chinese and Aborigines) which took place in the twelve months of which the date of each census was the middle. The proportions of the latter to the former, therefore, differ slightly from those in the previous table, which are based upon the total mean population and all the marriages in the calendar year.

† Comprising bachelors of 20 and upwards, and widowers at all ages.

‡ Comprising spinsters of 15 and upwards, and widows at all ages.

work than it had been, whilst the discomforts of a gold-fields life were as great as ever, and so the rate naturally declined. By 1861, the yield of gold had seriously diminished, and as persons had not yet turned, to any great extent, to other pursuits, much distress was experienced, and the rate fell to a minimum. By 1871, and in a greater degree by 1881, a large proportion of the population had settled on farms, whilst some unable to obtain congenial occupation, had left the colony; tents had almost disappeared from the gold-fields; the miners were, for the most part, working for wages, and did not, as formerly, rush about from place to place; manufactures had been started, and had made considerable progress, and, accordingly, the rate improved. In 1871, the marriage rate was higher than at any previous period of the colony's history, and in 1881, it was still higher than in 1871.

Probability
of female
marriage
rate reviv-
ing.

6. The decline in the female marriage rate shown in the last column of the table will be better realized when it is considered that in 1854 about 1 in 4 of all the spinsters and widows in the colony married in the year—which proportion, three years after, had fallen to 1 in 6; four years later, it had fallen to 1 in 8; ten years still later, it had fallen to 1 in 14; and ten years later, viz., in 1881, it had reached the exceedingly low point of 1 in 21. The tide had probably then turned, and the youthful native-born male population growing up to manhood had commenced to fill the gap in early adult life caused by the passing on to later periods of the immigrants who, at the time of the discovery of the first gold-fields, came to Victoria unaccompanied by persons at younger ages who should supply their places as they passed onward or disappeared altogether from the scene. It may, therefore, be expected that, if the colony continues to enjoy a fair amount of prosperity, the next census will show that the marriages have increased in proportion to the available females, as the last enumeration showed they had done in proportion to the available males.

Victorian,
French,
and Swiss
marriage
rates.

7. Whilst, according to the lowest line in the last table, marriageable males in Victoria marry at the annual rate of 57 per 1,000, and marriageable females at the annual rate of 48 per 1,000, similar proportions are in France 57 and 46, and in Switzerland 49 and 38; the former approximating very closely to, but the latter, as regards both males and females, being much lower than, the proportions for Victoria.*

Marriage
rates in
Austral-
asian
colonies.

8. The following table gives a statement of the number of marriages to every 1,000 of the population of the various Australasian

* The French and Swiss male and female marriage rates are taken from papers read by M. Toussaint Loua before the Statistical Society of Paris in September and December, 1884.

colonies for each year from 1865 to 1888, except Western Australia, for which colony it is given for the last seventeen of those years :—

MARRIAGE RATES IN AUSTRALASIAN COLONIES, 1865 TO 1888.*

Year.	Number of Marriages † per 1,000 of Mean Population.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1865	7.36	8.94	13.27	9.45	...	6.27	10.47
1866	6.76	8.26	11.61	8.12	...	5.93	10.32
1867	6.97	7.84	9.54	8.20	...	6.10	9.69
1868	7.08	8.23	8.33	7.37	...	6.57	9.35
1869	6.89	8.04	8.31	6.78	...	6.44	8.32
1870	6.63	7.85	7.80	6.90	...	6.62	7.62
1871	6.37	7.78	8.06	6.77	...	5.90	7.15
1872	6.36	7.46	8.70	7.20	5.56	6.17	6.85
1873	6.50	8.05	9.66	8.00	6.25	6.36	7.91
1874	6.33	7.70	8.62	8.00	6.96	6.83	8.87
1875	6.33	7.88	8.63	8.01	7.26	6.63	8.94
1876	6.21	7.66	7.57	8.49	7.07	7.13	8.25
1877	6.31	7.94	7.57	8.66	6.38	7.79	7.63
1878	6.20	8.08	6.98	9.47	6.50	7.96	8.03
1879	5.98	7.80	7.49	8.81	7.57	7.23	7.60
1880	6.22	7.68	6.97	8.69	7.42	7.38	6.71
1881	6.79	8.27	7.71	8.33	6.60	7.30	6.65
1882	7.09	8.74	8.56	8.73	7.07	8.03	7.07
1883	7.43	8.88	8.93	8.49	6.95	9.01	6.82
1884	7.73	8.49	8.91	8.28	7.11	7.81	6.88
1885	7.72	8.18	9.20	7.82	7.51	7.97	6.73
1886	7.84	7.97	8.38	6.31	7.99	7.27	5.99
1887	7.62	7.42	8.21	6.31	7.58	6.71	5.97
1888	8.42	7.37	8.63	6.56	7.18	6.59	5.97
Means	6.88	8.02	8.65	7.91	7.00	7.00	7.74

NOTE.—In consequence of amendments in the population estimates, the figures of the year 1887 in the columns for Western Australia and New Zealand have been corrected since the last publication of the *Victorian Year-Book*.

9. It will be observed that the mean marriage rate is lower in Victoria than in any one of the neighbouring colonies, and as during the whole period over which the calculations extend, Victoria has certainly been second to none of the other colonies in point of wealth and prosperity, this may create surprise in the minds of those who fail to realize the fact that marriage rates, calculated upon the total population, do not afford an indication of the amount of prosperity in a community so much as of the proportion which single men at marriageable ages bear to the population as a whole. In civilized countries, the age at which four-fifths of the males who marry enter the marriage state is between

Reasons for marriage rates being higher in other colonies than in Victoria.

* For the number of marriages in the various colonies during the sixteen years ended with 1888, see General Summary of Australasian Statistics (third folding sheet) *ante*.

† The numbers doubled give the *persons* married per 1,000 of the population.

20 and 35 years. It naturally follows, therefore, that on the number of single males at such ages the number of marriages mainly depends. Prior to the taking of the last census it was mentioned as probable that there had been a falling-off in the male population of Victoria at those ages; and, as was anticipated, the census disclosed the fact that Victoria had, in proportion to the total population, a smaller number of males between 20 and 40 than any of the other colonies. The explanation of the higher proportion in the other colonies of males at the period named is to be found mainly in the fact that they—especially New South Wales, Queensland, South Australia, and New Zealand—had, for many years, introduced large numbers of adults at the cost of the State, and, as is nearly always the case when immigration is subsidized, these were accompanied or followed by a steady stream of unassisted immigrants. Besides, not one of the neighbouring colonies was subjected, in the early years of its history, to so large an influx of adult male immigrants unaccompanied by persons at younger ages, followed by a cessation of immigration, as was the case in Victoria at and since the time of the early gold discoveries. As the young population has grown to a marriageable age, however, this colony has assumed a normal condition; and this circumstance has for several years past brought about a marked improvement in the marriage rate, so much so, that in this respect, Victoria was in 1888 in advance of all except one of the neighbouring colonies.

Comparison
of marriage
rates of
colonies in
1888 and
former
years.

10. In 1888 the marriage rates in Victoria and Western Australia were above the mean rates in those colonies respectively during the whole period, as shown in the last line of the table, but the rates in New South Wales, South Australia, and Tasmania were considerably, and the rate in Queensland was very slightly, below the average; the marriage rate was identical with the rate in the previous year in New Zealand, was much above it in Victoria, slightly above it in Queensland and South Australia, and below it in New South Wales, Western Australia, and Tasmania. The marriage rate has for some years past been diminishing in South Australia and New Zealand. For many years these two had higher marriage rates than almost any of the other colonies, but now they have lower ones than almost any of the others, thus affording remarkable instances of a high marriage rate coincident with an influx of adult immigrants, and a low one consequent upon such influx being stopped. A similar

change, although in a less marked degree, and doubtless attributable to a similar cause, has taken place in the marriage rate of New South Wales, which has fallen from nearly 9 per 1,000 in 1883 to only about $7\frac{1}{3}$ per 1,000 in 1888.*

11. The following is the order of the colonies in reference to their respective marriage rates in the last year shown in the table and according to the average of the whole period of twenty-four years:—

Order of colonies in respect to marriage rates.

ORDER OF COLONIES IN REFERENCE TO MARRIAGE RATES.

Order in Latest Year	Order in a Series of Years.
1. Queensland.	1. Queensland.
2. Victoria.	2. New South Wales.
3. New South Wales.	3. South Australia.
4. Western Australia.	4. New Zealand.
5. South Australia.	5. { Tasmania.
6. Tasmania.	{ Western Australia.
7. New Zealand.	6. Victoria.

12. Since the last publication of the *Victorian Year-Book*, Victoria in the list showing the order in the latest year, has risen from the third to the second place, New South Wales from the fourth to the third, and South Australia from the sixth to the fifth, whilst Western Australia has descended from the second to the fourth, and Tasmania from the fifth to the sixth place. In the list showing the order in a series of years the colonies remain in the same order as before, except that Western Australia, which in the previous year stood below Tasmania, in the latest year stood exactly equal to it.

Positions of colonies as regards marriage rates.

13. In 1888 the mean marriage rate of the five colonies situated upon the Australian continent, and of those colonies with the addition of Tasmania and New Zealand, was higher than in the previous two years, lower than in the four preceding ones, but higher than in any other year since 1872, as is shown by the following figures:—

Marriage rates in Australia and Australasia.

* Such an event was foreshadowed by the present writer in a paper read by him before the Melbourne Social Science Congress on the 25th April, 1880, in the following words:—"A depression in the marriage rate, it may be anticipated, will before long overtake several of the neighbouring colonies wherein marriages now bear a high proportion to the population, but which proportion must inevitably decline upon the cessation of the stream of adult immigrants which now flows towards their shores."

MARRIAGE RATES IN AUSTRALIA AND AUSTRALASIA, 1873 to 1888.

Year.	Number of Marriages * per 1,000 of Mean Population.		Year.	Number of Marriages * per 1,000 of Mean Population.	
	Continent of Australia.	Australia with Tasmania and New Zealand.		Continent of Australia.	Australia with Tasmania and New Zealand.
1873 ...	7.35	7.38	1882 ...	8.04	7.87
1874 ...	7.07	7.32	1883 ...	8.20	8.03
1875 ...	7.12	7.38	1884 ...	8.22	7.72
1876 ...	6.93	7.15	1885 ...	8.07	7.83
1877 ...	7.05	7.18	1886 ...	7.78	7.45
1878 ...	7.08	7.27	1887 ...	7.47	7.19
1879 ...	6.88	7.01	1888 ...	7.84	7.48
1880 ...	7.15	7.08			
1881 ...	7.62	7.41	Means ...	7.49	7.42

Marriage
rates in
certain
British
possessions.

14. Returns of marriages, births, and deaths are obtainable for few British colonies outside of Australasia. The following are the marriage rates in those colonies—which, it is to be regretted, are, for the most part, of only minor importance—for which such particulars have come to hand, or can be gathered from their official reports. The low rate in Barbados is explained by the fact that the negro population as a rule ignore the marriage ceremony. The same circumstance, to a greater or less extent, doubtless also affects the marriage rate in Trinidad, and perhaps also in the Mauritius, although the low marriage rate in the latter would, to a certain extent, be accounted for by the fact that the large imported Cooly population is for the most part comprised of males, the females introduced being extremely few:—

MARRIAGE RATES IN CERTAIN BRITISH COLONIES.

Years.			Annual Rate per 1,000 of the Population.*	Annual Rate per 1,000 of the Population.*		
Ceylon	...	1867-76	7.3	West Indies—		
Mauritius	...	1871-75	2.5	St. Vincent	1872-76	6.3
Seychelles	...	1875-77	8.7	Barbados	1872-77	3.7
Nova Scotia	...	1871-75	7.7	Grenada	1871-75	5.6
Bermudas	...	1871-75	8.3	Dominica	1871-75	6.9
West Indies—				Trinidad	1871-75	3.8
St. Lucia	...	1878-79	5.2			

Marriage
rates in
European
countries.

15. The following table gives for each of the five years ended with 1887 a statement of the marriage rates in British and such Foreign countries as the information is available for. The figures

* The numbers doubled give the *persons* married per 1,000 of the population.

have been taken from the reports of the Registrar-General of England:—

MARRIAGE RATES IN EUROPEAN COUNTRIES, 1883 TO 1887.

Countries.	Number of Marriages* per 1,000 of Mean Populations.					
	1883.	1884.	1885.	1886.	1887.	Mean of Five Years.
Hungary ...	10·2	10·1	...	9·6	...	10·0
Prussia ...	7·8	8·0	8·1	8·1	8·0	8·0
Italy ...	8·0	8·2	7·9	7·8	7·7	7·9
German Empire ...	7·7	7·8	7·9	7·9	7·8	7·8
Austria ...	7·8	7·8	7·6	7·7	7·8	7·7
Denmark ...	7·7	7·8	7·6	7·1	7·0	7·4
France ...	7·5	7·6	7·4	7·4	7·3	7·4
England and Wales ...	7·7	7·5	7·2	7·0	7·1	7·3
Holland ...	7·1	7·2	6·1	6·9	7·0	6·9
Belgium ...	6·7	6·7	6·8	6·7	7·1	6·8
Switzerland ...	6·8	6·8	6·9	6·8	6·8	6·8
Spain ...	6·3	6·7	...	...	...	6·5†
Scotland ...	7·0	6·7	6·4	6·2	6·3	6·5
Norway ...	6·6	6·8	6·6	6·5	...	6·6
Sweden ...	6·4	6·5	6·6	6·4	...	6·5
Ireland‡ ...	4·3	4·5	4·3	4·2	4·4	4·3

16. It will be observed that, in four of the twelve countries of which particulars are given for 1887, viz., Austria, Holland, Belgium, and Ireland, the marriage rate was above the average; in five of those countries, viz., Italy, Denmark, France, England and Scotland, it was below the average; and in three, viz., Prussia, Germany, and Switzerland, it was exactly equal to the average; also that in Belgium the rate was higher, and in Denmark and France lower than, and in Austria as high as in any of the other years named.

European marriage rates in 1887 and former years.

17. In the same five years, the mean marriage rates in Queensland and New South Wales were above those in any of the countries named, except Hungary (three years); whilst the mean rate was higher in Tasmania than in twelve, in Victoria, South Australia and Western Australia than in eleven, and in New Zealand than in one, of these countries. The following are the rates referred to:—

Australasia and European marriage rates compared.

* The numbers doubled give the *persons* married per 1,000 of the population.

† Mean of two years.

‡ The low marriage rate in Ireland is partly attributed to the defective registration of Roman Catholic marriages, which amount to over 70 per cent. of the whole. It is also stated to be in part due to "the abnormal conditions arising from a large annual emigration of unmarried persons at what may be called the marrying ages."—See 15th Detailed Report of the Registrar-General of Ireland, page 6.

MEAN MARRIAGE RATES IN AUSTRALASIAN COLONIES,
1883 TO 1887.

					Number of Marriages per 1,000 of Mean Population.
Queensland	...	...	...	...	8·73
New South Wales	...	...	...	...	8·19
Tasmania	...	...	...	...	7·75
Victoria	...	...	...	...	7·67
South Australia	...	...	...	...	7·44
Western Australia	...	...	...	...	7·43
New Zealand	...	...	...	...	6·48

Marriage
rate in
United
Kingdom.

18. The following, according to the reports of the Registrar-General of England, is the marriage rate of the United Kingdom during the seventeen years ended with 1887. If, however, the registrations in Ireland are defective, as is alleged,* some disturbance to the calculations must result therefrom. It will be observed that the rate was lower in 1887 than in any other year named except 1886 :—

MARRIAGE RATE IN THE UNITED KINGDOM, 1871 TO 1887.

Marriages per 1,000 of the Population.				Marriages per 1,000 of the Population.			
1871	...	...	8·21	1881	...	...	7·01
1872	...	...	7·98	1882	...	...	7·17
1873	...	...	8·03	1883	...	...	7·15
1874	...	...	7·79	1884	...	...	7·04
1875	...	...	7·67	1885	...	...	6·72
1876	...	...	7·70	1886	...	...	6·51
1877	...	...	7·32	1887	...	...	6·64
1878	...	...	7·09				
1879	...	...	6·69				
1880	...	...	6·83				
				Mean	...	...	7·27

Marriage
rates in
town and
country.

19. Although rural rather than urban life tends to the promotion of marriage, it happens that, since the marriage ceremony is generally performed in towns, whatever may be the ordinary residence of the persons marrying, the marriage rate recorded there is much higher than that in the country. In Victoria, during the year 1888, it was over three times as high in the metropolis and over two and a half times as high in country towns as it was in rural districts, as will be seen by the following table, which contains a statement of the proportion of marriages to the population in the three classes of districts in the year 1888 and in a previous quinquennial period :—

* See footnote (†) on previous page.

MARRIAGES IN URBAN AND COUNTRY DISTRICTS, 1888.

Districts.	Estimated Mean Population.	Marriages, 1888.		Proportion per 1,000 of the Population, 1881-1885.
		Total Number.	Number per 1,000 of the Population.	
Melbourne and suburbs (Greater Melbourne)	419,490	5,092	12·14	10·49
Extra-Metropolitan towns ...	194,870	2,068	10·61	10·99
Country districts ...	447,690	1,786	3·99	3·12
Total ...	1,062,050	8,946	8·42	7·30

20. Marriages in Victoria are generally most numerous in the autumn quarter, next in the spring quarter, next in the summer quarter, and least numerous in the winter quarter. In 1888, however, the numbers in the spring exceeded those in the autumn quarter, and those in the winter exceeded those in the summer quarter. The following table shows the number and percentage of marriages in each quarter of that year, and the mean percentage in each quarter of two previous periods :—

MARRIAGES IN EACH QUARTER.

Seasons.	Quarter ended on the last day of—	Year 1888.		Percentage in—	
		Number of Marriages.	Percentage.	Ten Years : 1871 to 1880.	Five Years : 1881 to 1885.
Summer ...	March... ..	2,036	22·76	24·43	23·46
Autumn ...	June	2,322	25·95	26·19	26·52
Winter ...	September ...	2,059	23·02	23·81	23·66
Spring ...	December ...	2,529	28·27	25·57	26·36
	Year ...	8,946	100·00	100·00	100·00

21. Over a series of years rather over four-fifths of the unions which take place are between bachelors and spinsters; but in 1887 nearly five-sixths and in 1888 nearly seven-eighths were between persons in those conditions of life. The next most numerous are generally those between widowers and spinsters, although they have sometimes been exceeded by marriages between bachelors and widows. Marriages between widowers and widows are generally in a proportion ranging from a twentieth to a twenty-fifth, but in 1888 and the previous year only about a thirty-third, of the whole. The following is the number and percentage in each of these groups during 1888 and the percentage during two previous periods :—

Marriages
in each
quarter.

Former
condition
of those
marrying.

FORMER CONDITION OF PERSONS MARRIED.

Previous Condition.	Year 1888.		Percentage in—	
	Number of Marriages.	Percentage.	Ten Years : 1871 to 1880.	Five Years : 1881 to 1885.
Bachelors and spinsters ...	7,724	86·34	80·59	84·67
Bachelors and widows ...	399	4·46	7·10	5·01
Widowers and spinsters ...	554	6·19	7·75	6·63
Widowers and widows ...	269	3·01	4·56	3·69
Total ...	8,946	100·00	100·00	100·00

Former condition of those marrying in various countries.

22. The following statement gives the proportions of marriages of persons of different conjugal conditions in various countries; the figures have been taken entirely from official documents published in the respective countries named :—

FORMER CONDITION OF PERSONS MARRYING IN DIFFERENT COUNTRIES.

Countries.	Per 1,000 Marriages Celebrated, Number between—			
	Bachelors and Spinsters.	Bachelors and Widows.	Widowers and Spinsters.	Widowers and Widows.
Victoria ...	847	50	66	37
Austria ...	758	62	129	51
Belgium ...	834	50	81	35
Denmark ...	832	50	96	22
England and Wales ...	819	44	84	53
Finland ...	788	54	113	45
France ...	844	41	78	37
Greece ...	861	39	67	33
Holland ...	805	44	103	48
Hungary ...	752	50	97	101
Ireland ...	857	31	86	26
Italy ...	832	37	94	37
Massachusetts ...	790	48	103	59
Norway ...	854	34	91	21
Prussia ...	807	53	105	35
Roumania ...	848	28	61	63
Russia in Europe ...	772	42	98	88
Scotland ...	851	29	89	31
Spain ...	811	40	100	49
Sweden ...	854	34	91	21
Switzerland ...	816	49	104	31
Vermont ...	747	44	128	81

Re-marriages in Victoria

23. In 1888, 823 widowers and 668 widows re-entered the married state. During the last fifteen years more widowers have re-married than widows. Formerly it was different. In the eight

years ended with 1873 the widowers re-entering the married state numbered 4,344, and the widows 4,618, and at earlier periods in the history of the colony the preponderance of re-marriages of widows over those of widowers was even greater than this. Such a preponderance would be likely to happen only in a country in which females are much less numerous than males; and the fact of the reverse having been the case of late years would afford indirect proof, if such were needed, that the proportion of marriageable females to marriageable males in the population has increased, a circumstance which was made evident by the results of the last census.* In England and Wales, during the ten years ended with 1885, 40 per cent. more widowers re-married than widows, the number of the former being 258,061, that of the latter 184,665. The following is a statement of the number of widowers and widows who re-married in Victoria during each of the twenty-three years ended with 1888:—

RE-MARRIAGES, 1866 TO 1888.

Year.	Number of Re-marriages of—		Year.	Number of Re-marriages of—	
	Widowers.	Widows.		Widowers.	Widows.
1866 ...	487	498	1878 ...	634	585
1867 ...	504	591	1879 ...	637	553
1868 ...	558	623	1880 ...	603	520
1869 ...	553	563	1881 ...	679	551
1870 ...	547	595	1882 ...	628	547
1871 ...	587	605	1883 ...	699	562
1872 ...	522	552	1884 ...	725	615
1873 ...	586	591	1885 ...	735	646
1874 ...	602	593	1886 ...	696	607
1875 ...	614	583	1887 ...	692	552
1876 ...	678	623	1888 ...	823	668
1877 ...	666	600			
			Total	14,455	13,423

24. By the figures in the following, which have been derived from those in the foregoing table, it would appear that a larger proportion of widowers re-marry in Vermont and a smaller in Greece, and a larger proportion of widows re-marry in Hungary and a smaller in Sweden and Norway, than in any other of the countries named; also, that, in Victoria, widowers re-marry less frequently than in any of those countries except Greece, but that in ten of those countries widows re-marry less frequently than in Victoria:—

Re-
marriages
in various
countries.

* According to the census returns, there were in Victoria, in 1881, nearly 120 marriageable females to every 100 marriageable males.

RE-MARRIAGES IN VARIOUS COUNTRIES.

Countries.	Widowers re-married per 1,000 marriages.	Countries.	Widows re-married per 1,000 marriages.
Vermont	209	Hungary	151
Hungary	198	Russia in Europe	130
Russia in Europe	186	Vermont	125
Austria	180	Austria	113
Massachusetts	162	Massachusetts	107
Finland	158	Finland	99
Holland	151	England and Wales	97
Spain	149	Holland	92
Prussia	140	Roumania	91
England and Wales	137	Spain	89
Switzerland	135	Prussia	88
Italy	131	Victoria	87
Roumania	124	Belgium	85
Scotland	120	Switzerland	80
Denmark	118	France	78
Belgium	116	Italy	74
France	115	Denmark	72
Ireland	112	Greece	72
Sweden	112	Scotland	60
Norway	112	Ireland	57
Victoria	103	Sweden	55
Greece	100	Norway	55

Divorced
persons,
1888.

25. Divorced persons marrying are classed as bachelors and spinsters, unless in cases where they had become widowers or widows before contracting the marriage from which they were released by divorce. Five divorced men and twelve divorced women were married in 1888; four of the former married spinsters, and one a widow; ten of the latter married bachelors, and two widowers. In the previous year, eight divorced men and eleven divorced women were re-married.

Divorced
persons,
1881.

26. The persons returned at the census of 1881 as living in a state of divorce numbered 19, viz., 9 males and 10 females. Of the former, 4 were farmers or gardeners, 1 was a merchant, 1 a shopkeeper, 1 a cabinetmaker, 1 a bootmaker, and 1 a maltster; 5 were members of the Church of England, 1 was a Presbyterian, 1 a Roman Catholic, and 2 were Free Thinkers. Of the females, 1 was an innkeeper, 1 a farmer, 1 a tailoress, 1 a needlewoman, 1 of independent means, 2 were washerwomen, and 3 were merely performing domestic duties; 3 were members of the Church of England, 1 was a Presbyterian, 1 a Methodist, 1 a Baptist, 1 a Lutheran, and 3 were Roman Catholics.*

Deserted
husbands
and wives.

27. Persons whose wives or husbands have not been heard of for a period of seven years may marry again without rendering themselves

* For further particulars respecting these divorced persons, see General Report, by the Government Statist, on the Census of Victoria, 1881, paragraph 314.

liable to be prosecuted for bigamy; but such unions are subject to the serious disadvantage that the issue by the second marriage would be illegitimate, and the marriage itself void, if it should turn out that the first husband or wife was alive at the time thereof. Eight deserted wives, and two deserted husbands, availed themselves of this provision in 1888. One of the former, who had not heard of her husband for 8 years, married one of the latter who had not heard of his wife for 20 years. Of the other deserted wives, five married bachelors, and one a widower; they had not heard of their former husbands—two for 7 years, one for 8, one for 9, one for 20, and one for 30 years. The other deserted husband married a spinster; he had not heard of his former wife for over 9 years. In the previous year five deserted wives and three deserted husbands re-married.

28. The marriages of 5 Aboriginal males with Aboriginal females, and the marriage of an Aboriginal female with an Englishman, are included in the returns of 1888. Only one (a female) was stated to be a half-caste. In the previous year, 4 marriages of Aborigines took place.

29. Eight Chinese males were married in Victoria in the year 1888, as against 13 in 1887, 18 in 1886, and 31 (including 2 half-castes) in 1885. Of the women who married Chinese in the year under review, one was a half-caste born in Victoria. During the twenty-two years prior to 1888, 357 Chinamen were married in Victoria, or an average of about 16 per annum. The following table shows the nationalities of the women who formed matrimonial unions with Chinese during that period, also during the year under review:—

NATIONALITY OF WOMEN MARRYING CHINESE, 1866 TO 1888.

Birthplace of Wives.	Number of Marriages of Chinese Males.		
	Twenty-two Years 1866 to 1887.	Year 1888.	Total: 1866 to 1888.
Victoria	177	5*	182
Other Australian colonies ...	57	2	59
England and Wales... ..	63	1	64
Scotland	15	...	15
Ireland	26	...	26
Other British possessions ...	1	...	1
France	1	...	1
Germany	2	...	2
Spain	1	...	1
The United States	2	...	2
China	4	...	4
At sea	8	...	8
Total	357	8	365

* One of the wives, although born in Victoria, was stated to be a half-caste.

Marriages
by different
sects.

30. The marriage ceremony in Victoria may be performed either by the registered clergy of any religious sect, or by lay registrars. In 1888, over 94 per cent. of the marriages were celebrated according to the former, and less than 6 per cent. according to the latter, system. Lay marriages, in 1888, numbered 510, and were more numerous than in 1887, when they numbered 494, or than in the previous two years, in which respectively they numbered 453 and 426. They were, however, not so numerous as in 1884, when they numbered 645; in 1883, when they numbered 565; or in 1882, when they numbered 588. The following table gives a statement of the number and percentage of marriages celebrated by each religious sect and by lay registrars during 1888, also the percentage in the quinquennial period ended with 1885, and in the decennial period ended with 1880:—

MARRIAGES BY DIFFERENT DENOMINATIONS.

Marriages performed according to the usages of the—	Marriages in 1888.		Percentage of Marriages in—	
	Number.	Percentage.	Five Years : 1881 to 1885.	Ten Years : 1871 to 1880.
Church of England	2,883	32·23	28·34	24·63
Presbyterians	1,490	16·66	17·77	20·46
Wesleyans	1,310	14·64	15·93	16·38
Bible Christians	188	2·10	2·09	1·69
Independents	384	4·29	5·04	5·42
Baptists	488	5·45	4·94	3·70
Lutherans	75	·84	·98	1·02
Unitarians	4	·05	·03	·02
Calvinistic Methodists	4	·05	·07	·16
Roman Catholics	1,401	15·66	14·69	17·21
Jews	38	·42	·43	·42
Other sects	171	1·91	1·14	1·07
Lay registrars... ..	510	5·70	8·55	7·82
Total	8,946	100·00	100·00	100·00

Duplicate
marriages.

31. It should be mentioned that, occasionally, a marriage is performed twice over, viz., by a lay registrar and a clergyman, or by clergymen of two different denominations. It is not always easy to detect these cases in the registers, but the circumstance occurs too seldom to cause any serious disturbance in the marriage statistics.

Sects of
Aboriginals
married.

32. Of the 6* Aboriginal marriages which took place in 1888, 2 were solemnized according to the rites of the Moravians, 1 according to the rites of the Church of England, 1 according to those of the Wesleyans, 1 according to those of the Presbyterians, and 1 according to those of the Baptists.

* One of these was the marriage of an aboriginal female to an Englishman.

33. Of the 8 marriages of Chinese in 1888, 2 were celebrated according to the rites of the Church of England, 3 according to those of the Free Church of England, 1 according to those of the Presbyterians, 1 according to those of the Wesleyans, and 1 was performed by a town missionary. Sects of Chinese married.

34. The returns of the census of 1881 afford an opportunity of comparing the number of marriages performed according to the rites of each particular denomination with the numbers of that denomination in the population; and by taking the mean of the returns of that census and the preceding one, and of the marriages which were performed in the interval which elapsed between the two censuses, the same information is obtained extending over a period of ten years. • The result is given in the following table:— Marriages by different sects.

PROPORTION OF MARRIAGES TO NUMBERS OF EACH
DENOMINATION.

Religious Denomination.	Persons of each Denomination, 1881.	Marriages celebrated annually, 1880 to 1882.		Persons of each Denomination (mean of 1871 and 1881).	Marriages celebrated annually, 1871 to 1880.	
		Mean Number.	Proportion per 1,000 persons living.		Mean Number.	Proportion per 1,000 persons living.
Church of England ...	311,291	1,554·3	5·00	284,563	1,226·4	4·31
Presbyterians ...	132,591	1,107·0	8·35	122,787	1,018·6	8·30
Wesleyans ...	108,393	936·3	8·64	99,209	815·5	8·22
Bible Christians ...	6,660	117·3	17·57	5,427	84·0	15·48
Independents ...	19,878	286·3	14·40	19,034	269·8	14·17
Baptists ...	20,373	234·0	11·49	18,342	184·0	10·03
Lutherans ...	11,149	57·3	5·14	10,854	50·8	4·68
Unitarians ...	942	2·0	2·12	979	·9	·92
Society of Friends ...	282	...	...	308	·4	1·30
Calvinistic Methodists ...	712	6·3	8·85	1,072	8·2	7·65
Roman Catholics ...	203,480	828·3	4·07	187,050	856·8	4·58
Jews ...	4,330	24·0	5·54	3,950	21·1	5·34
Other sects ...	8,465	69·3	...	7,430	52·8	...
Residue ...	33,800*	607·7†	...	35,932*	389·1†	...
Total ...	862,346	5,830·1	6·76	796,937	4,978·4	6·25

35. It will be observed that the denominations which solemnize most marriages in proportion to their numbers in the population are the Bible Christian, the Independent, and the Baptist, in the order Sects which perform most marriages and vice versa.

* Including Buddhists, Confucians, etc., those of no denomination and of no religion, and the unspecified.

† Marriages by lay registrars.

named. In all these cases the proportion in the three years of which the census year is the middle, viz., 1880 to 1882, was higher than that shown for the decennium. In proportion to their respective numbers, the marriages performed in the three years named according to the rites of the Church of England, the Lutherans, and the Jews were more numerous, and those according to the rites of the Wesleyans, Presbyterians, and Calvinistic Methodists were much more numerous, than those performed according to the rites of the Roman Catholic Church; but, according to the average of the decennium, more marriages were solemnized according to the rights of the Roman Catholic Church than according to those of the Church of England.

Signing with marks.

36. The numbers of either sex who evinced their want of elementary education by signing the marriage register with a mark instead of in writing were as follow in 1888, the proportion of those who signed with marks to the total numbers married being also shown :—

SIGNING MARRIAGE REGISTER WITH MARKS, 1888.

Persons Married.	Numbers Married.	Signing with Marks.	
		Total Number.	Number in every 100 Married.
Bridegrooms ...	8,946	154*	1.72
Brides ...	8,946	162	1.81
Mean ...	8,946	158	1.76

Increased numbers signing in writing.

37. In proportion to the total numbers married, a very satisfactory increase has taken place of late years in the number of both males and females signing the marriage register in writing. With few exceptions, a constant improvement has been apparent from year to year—nearly every year, as compared with its predecessor, showing a smaller proportion of persons signing with marks. In 1888, the proportion of both men and women signing with marks was much lower than in any previous year, as will be seen by the following figures, which show the proportions for the last sixteen years :—

* Of these, 4 were Chinese, who signed in the Chinese character. If these be excluded, the number of men signing with marks would be reduced to 150, and the mean of both sexes to 156, the proportion to every 100 marriages being 1.68 of the former and 1.74 of the latter. In the case of the marriage of 2 Syrians which took place during the year, the signature of both man and woman were in the Syriac character, but these signatures are considered to have been in writing.

NUMBERS SIGNING WITH MARKS PER 100 MARRIED,
1873 TO 1888.

Year.	Men.	Women.	Mean.	Year.	Men.	Women.	Mean.
1873	6.55	9.97	8.26	1881	2.90	4.16	3.53
1874	6.52	9.91	8.22	1882	2.83	3.27	3.07
1875	5.43	9.43	7.46	1883	3.09	3.47	3.28
1876	5.31	7.50	6.41	1884	2.55	2.77	2.66
1877	5.04	6.02	5.53	1885	2.56	2.62	2.59
1878	4.12	5.30	4.71	1886	2.00	1.98	1.99
1879	3.81	5.60	4.71	1887	1.73	2.12	1.92
1880	4.18	4.09	4.13	1888	1.72*	1.81	1.76*

38. A very much more decided improvement is shown by comparing* these results with those of the twenty years prior to 1873, which embrace the whole period from 1853, when the registration system was inaugurated in Victoria, to the end of 1872. In this period, 86,062 marriages were registered, with the result that 7,902 of the bridegrooms and 17,824 of the brides signed the register with marks. These numbers give the following proportions as the average for the twenty years:—

NUMBERS SIGNING WITH MARKS PER 100 MARRIED,
1853 TO 1872.

Men.	Women.	Mean.
9.18	20.71	14.95

39. It will be noticed that in every one of the years except 1886, the proportion of men able to write has been greater than that of women.

40. The marriages in which marks instead of writing were made use of in 1888 numbered 297, but in only 19 of these, or about 1 in 15, did both parties use marks. In the 278 other instances either the husband or the wife signed in writing. Thus, whereas in the case of 1 marriage in 30 either the bride or the bridegroom was unable to write, it happened in the case of only 1 marriage in 470 that neither party was able to sign the marriage register in writing.

41. Of the 8 Chinese who married in 1888, 3 signed with an ordinary cross, 4 with a Chinese character, and 1 in writing. Of the women they married, all but 1 signed in writing.

* See footnote (*) on page 18.

Signatures
of Aborigines.

42. In the case of the Aborigines who married in 1888, all the males—5 in number—signed in writing, and only 1 of the 6 females signed with a mark.

Signing with
marks in
each sect.

43. The proportion of persons signing with marks is found to differ according to the religious denomination. Means are afforded by the following table of observing the position of the adherents of the different sects so far as the possession of a sufficient amount of rudimentary education to enable them to write their names is concerned. The figures are those of the year 1888, the average of the quinquennial period ended with 1885, and of the decennial period ended with 1880. Considerable improvement will be noticed in respect to all the principal sects:—

SIGNING WITH MARKS IN EACH SECT.

Marriages performed according to the usages of the—	Number signing with Marks in every 100 Married.								
	Year 1888.			Five Years : 1881 to 1885.			Ten Years : 1871 to 1880.		
	Men.	Women.	Mean.	Men.	Women.	Mean.	Men.	Women.	Mean.
Church of England ...	1·53	1·66	1·59	1·90	2·11	2·00	4·54	6·11	5·33
Presbyterians ...	·94	·74	·84	1·71	2·06	1·88	3·67	5·97	4·82
Methodists ...	1·34	1·73	1·53	2·28	2·33	2·30	4·15	5·33	4·74
Bible Christians }									
Independents ...	1·30	·26	·78	2·36	2·18	2·27	3·37	5·49	4·43
Baptists ...	1·64	2·05	1·84	2·17	2·77	2·47	3·48	5·22	4·35
Lutherans ...	...	...	...	...	...	...	1·77	4·13	2·95
Calvinistic Methodists ...	...	...	...	...	...	...	1·22	6·10	3·66
Roman Catholics ...	2·57	2·50	2·53	5·19	5·55	5·37	10·14	15·43	12·79
Jews ...	...	...	...	...	...	...	·95	·47	·71
Other sects ...	·58	...	·29	3·66	4·45	4·05	7·01	3·79	5·40
Lay registrars ...	5·10	6·08	5·59	5·78	8·29	7·03	6·60	12·93	9·77
Total ...	1·72*	1·81	1·76	2·78	3·22	3·00	5·31	7·93	6·62

Roman
Catholic
and civil
marriages.

44. It will be observed that the proportion of those signing with marks is higher amongst marriages performed according to the rites of the Roman Catholic Church than amongst those celebrated by any other religious denomination, but that the numbers in 1888 show a very considerable improvement as compared with the five years ended with 1885, which show a still more marked improvement as compared with the ten years ended with 1880. The proportion so signing amongst civil marriages, although formerly lower, has of late been much higher than amongst marriages by Roman Catholics.

* See footnote to table following paragraph 37 ante.

45. In 28 marriages by Unitarians which took place in the eighteen years ended with 1888, not one instance occurred of either of the parties signing with a mark; this sect, therefore, finds no place in the above table. In 112 marriages by Calvinistic Methodists during the same period, all but two of the males signed in writing, but five of the females signed with marks, and in 418 marriages of Jews only 7 persons signed with marks.

Marriages by
Unitarians,
Calvinists,
and Jews.

46. A statement of the numbers who sign the marriage register with marks is published in all the Australasian colonies except Western Australia and Tasmania, and from the figures given the following percentages for the five years 1883 to 1887 have been deduced. The colonies are placed in order according to the state of education thus displayed, the colony with the smallest proportion signing with marks being placed first, and that with the reverse last:—

Signing with
marks in
Austral-
asian
colonies.

SIGNING WITH MARKS IN AUSTRALASIAN COLONIES, 1883 TO 1887.

Colony.	Year.	Number Signing with Marks to every 100 Married.		
		Men.	Women.	Mean.
1. Victoria ...	1883	3·09	3·47	3·28
	1884	2·55	2·77	2·66
	1885	2·56	2·62	2·59
	1886	2·00	1·98	1·99
	1887	1·73	2·12	1·92
	Mean of 5 years	2·39	2·59	2·49
2. New Zealand ...	1883	2·91	4·62	3·76
	1884	2·82	4·45	3·63
	1885	2·83	3·82	3·32
	1886	1·92	2·89	2·40
	1887	1·94	3·11	2·52
	Mean of 5 years	2·48	3·78	3·13
3. South Australia ...	1883	4·02	5·36	4·69
	1884	2·86	3·80	3·33
	1885	4·00	4·30	4·15
	1886	3·04	3·49	3·26
	1887	2·18	1·80	1·99
	Mean of 5 years	3·22	3·75	3·48
4. New South Wales ...	1883	5·66	6·54	6·10
	1884	4·68	5·79	5·24
	1885	4·31	5·19	4·75
	1886	3·76	4·20	3·98
	1887	3·04	3·95	3·49
	Mean of 5 years	4·29	5·13	4·71

SIGNING WITH MARKS IN AUSTRALASIAN COLONIES,
1883 TO 1887—continued.

Colony.	Year.	Number Signing with Marks to every 100 Married.		
		Men.	Women.	Mean.
5. Queensland ...	1883	5·35	8·40	6·88
	1884	4·06	7·48	5·77
	1885	3·76	7·35	5·56
	1886	4·52	6·71	5·62
	1887	3·53	5·39	4·46
Mean of 5 years	...	4·24	7·07	5·66

Victoria the
least illite-
rate colony.

47. By these figures it appears that the proportion of persons able to sign in writing is, on the average, larger in this than in any other colony. Next to Victoria in this respect is New Zealand, in which the proportion of males signing in writing was in two of the years—viz., 1883 and 1886—even larger than in this colony. In 1887, moreover, the proportion of females set down as having signed with marks was smaller in South Australia than in any other colony. The apparent improvement, however, as compared with previous years, combined with the fact of the proportion of females signing with marks being set down as less than that of males—which is opposed to the usual experience—leads to the belief that in extracting the mark entries from the returns of South Australia, some may have been missed. The colonies, generally, show improvement from year to year, and there is every reason to expect that in all the colonies, as the children educated under the compulsory systems established arrive at marriageable ages, it will become a rare occurrence for a marriage to be attested otherwise than in writing.

Signing with
marks in
various
countries.

48. No returns are at hand showing the manner in which the marriage registers are signed in British colonies other than those named. The following, however, is a statement of the numbers who signed with marks in the latest year for which the information is available in the undermentioned countries, which are arranged

in order; the least illiterate country being placed first and the rest in succession:—

SIGNING WITH MARKS IN VARIOUS COUNTRIES.

Country.	Year.	Number Signing with Marks to every 100 Married.		
		Men.	Women.	Mean.
Prussia	1884	3·31	5·11	4·21
Scotland	1886	4·65	8·28	6·46
England and Wales ...	1887	9·10	10·60	9·85
Holland	1877	7·53	14·83	11·18
France	1882	14·39	22·62	18·50
Ireland	1887	22·20	24·80	23·50
Italy	1886	21·58	31·73	26·65

49. By comparing these figures with those in the previous table, it will appear that adult education, so far as it is indicated by signature to the marriage register, is more forward in Victoria, New Zealand and South Australia than in any of the countries named; also that in New South Wales and Queensland it is more forward than in any except Prussia, in which the proportion signing with marks is much smaller than in any of the other countries. Scotland comes next to Prussia, but it is more than half as illiterate again. Holland, which comes next to Scotland and England would probably rank higher were it not that the latest return available dates as far back as 1877, when adult education was probably not so advanced as it is now. Attention is called to the very large proportion signing with marks in Italy and Ireland.

Countries compared as to illiteracy.

50. The age of both bridegroom and bride was specified in the case of all but 98 of the 8,946 marriages which took place in 1888. In 87 of the defective entries the age of neither party was given; in 4 cases the age of the husband was stated, but not that of the wife; and in 7 instances the age of the wife was given, but not that of the husband. The following table shows the ages of the husbands and of the wives in combination:—

Ages of bride-grooms and brides in combination.

AGES OF BRIDEGROOMS AND BRIDES IN COMBINATION, 1888.

Ages of Bridegrooms.	Ages of Brides.																			Total Bridegrooms.
	15 to 16.	16 to 17.	17 to 18.	18 to 19.	19 to 20.	20 to 21.	21 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	Unspecified.	
16 to 17 years	1	...	...	...	...	...	...	...	...	...	...	...	...	1
17 to 18 "	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	3
18 to 19 "	...	2	3	2	2	1	4	1	...	...	...	...	...	...	...	...	...	...	...	15
19 to 20 "	8	11	17	6	9	1	...	...	...	...	...	...	...	...	...	...	...	52
20 to 21 "	...	4	7	23	23	26	49	8	...	...	...	...	...	...	...	...	...	...	...	140
21 to 25 "	3	34	74	177	237	294	1520	337	39	12	1	...	1	...	...	...	...	...	2	2731
25 to 30 "	3	12	39	131	184	237	1543	1097	164	25	2	1	...	...	...	...	...	...	1	3439
30 to 35 "	...	2	9	20	40	53	428	453	197	49	14	...	...	...	...	...	...	...	1	1266
35 to 40 "	...	2	2	2	11	15	120	164	83	46	23	6	1	1	...	...	...	...	...	476
40 to 45 "	2	2	4	34	63	40	35	21	9	2	...	...	...	...	...	...	212
45 to 50 "	...	1	3	...	...	1	14	26	35	28	26	22	13	3	1	1	...	...	...	174
50 to 55 "	12	19	27	15	20	26	15	6	4	...	...	...	...	144
55 to 60 "	2	...	1	7	11	11	10	18	15	18	8	4	...	...	...	...	105
60 to 65 "	1	1	3	1	6	5	7	5	10	...	2	1	...	...	42
65 to 70 "	1	2	2	5	2	6	4	6	3	2	...	...	...	33
70 to 75 "	1	...	2	...	1	2	5	...	1	...	...	...	12
75 to 80 "	1	...	...	...	...	1	1	...	...	...	1	...	1	...	5
80 to 85 "	1	...	...	...	...	1	...	...	...	...	...	2
Unspecified	1	...	3	2	1	...	...	...	...	...	...	...	...	...	...	...	87	94
Total Brides	7	58	146	370	519	642	3745	2186	600	233	133	94	61	40	12	6	2	1	91	8946

NOTE.—This table may be read thus :—A man between 75 and 80 married a woman between 20 and 21; a woman between 50 and 55 married a man between 21 and 25, etc.

Relative
ages of
husband
and wife.

51. An examination of the 8,848 cases in which the ages of both parties are specified will show that in 2,975 instances, or 34 per cent. of the whole, both parties to the marriage were about the same age; in 805 instances, or 9 per cent. of the whole, the wife was older than the husband; and in 5,068 instances, or 57 per cent. of the whole, the husband was older than the wife.

Inequalities
of age.

52. Some striking inequalities of age amongst the parties married appear in several of the columns, as, for instance, a man between 75 and 80, and a man between 60 and 65 married women of 20; and two men between 50 and 55 married girls of 18. On the other hand, a woman between 21 and 25 married a youth of 16; a woman between 50 and 55 married a man between 21 and 25; a woman between 45 and 50 married a man between 25 and 30; a woman between 65 and 70 married a man between 45 and 50, etc.

Extreme
ages of
marriage.

53. It will be noticed that a boy, aged 16, took upon himself the cares and responsibilities of matrimony, his wife, however, being at least a lustrum older than himself; also that three youths, aged 17,

got married, one to a girl of 15, one to a girl of 17, and one to a woman between 21 and 25. On the other hand, it will be remarked that seven men, who had passed the age of 75—two of whom had passed the age of 80—entered the marriage state, the brides of two being of the same mature age as their husbands, whilst those of the others were generally much younger; one—married to a man between 75 and 80—being only 20 years of age.

54. The next table has been designed for the purpose of showing the age at which persons of either sex generally marry, the information being given for the year 1888, and for the decennial period 1871 to 1880:—

Age at
which mar-
riage is
contracted.

PROPORTION OF MALES AND FEMALES MARRYING AT DIFFERENT
AGES, 1871-80 AND 1888.

Ages.	Bridegrooms.			Brides.		
	Numbers, 1888.	Proportions per 1,000.		Numbers, 1888.	Proportions per 1,000.	
		Year 1888.	Ten Years, 1871-80.		Year 1888.	Ten Years, 1871-80.
Under 15 years...	...	...	...	...	...	·48
15 to 16 „ ...	...	...	...	7	·79	2·71
16 to 17 „ ...	1	·11	·02	58	6·55	12·74
17 to 18 „ ...	3	·34	·46	146	16·49	36·74
18 to 19 „ ...	15	1·69	1·57	370	41·78	62·69
19 to 20 „ ...	52	5·87	6·33	519	58·61	80·93
20 to 21 „ ...	140	15·82	16·79	642	72·50	86·94
21 to 25 „ ...	2,731	308·52	281·06	3,745	422·92	375·69
25 to 30 „ ...	3,439	388·50	295·83	2,186	246·87	174·64
30 to 35 „ ...	1,266	143·02	165·38	600	67·76	69·13
35 to 40 „ ...	476	53·77	97·22	233	26·31	44·26
40 to 45 „ ...	212	23·95	59·54	133	15·02	26·44
45 to 50 „ ...	174	19·66	37·58	94	10·62	14·99
50 to 55 „ ...	144	16·27	20·49	61	6·89	6·79
55 to 60 „ ...	105	11·86	9·92	40	4·52	3·03
60 to 65 „ ...	42	4·74	4·96	12	1·36	1·16
65 to 70 „ ...	33	3·73	1·85	6	·67	·40
70 and upwards ...	19	2·15	1·00	3	·34	·24
Total ...	8,852*	1,000·00	1,000·00	8,855*	1,000·00	1,000·00

55. The large proportion of both sexes marrying at between 21 and 30 years of age is very marked; thus in 1888 more than two-thirds of both males and females who married were between those ages. Owing, no doubt, to their relatively larger numbers in the

Frequency
of marriage
at 21 to 30.

* The bridegrooms and brides of unspecified ages being omitted, these numbers are less than those in the last table, the bridegrooms by 94 and the brides by 91. The reason of the bridegrooms being fewer than the brides is that the age was not stated in the case of three more of the former than of the latter.

population, the proportions marrying at the ages named in the last three years were much higher than those in the decennial period ; the latter amounting to only four-sevenths of the males, and only five-ninths of the females.

Ages of
Chinese
bride-
grooms and
their brides.

56. In the case of the marriages of Chinese which took place in 1888, the men with two exceptions were older than the females with whom they formed unions. None of the former were under 25 years of age, but of the latter, three had not reached the age of 21. The following table shows the ages of the Chinese bridegrooms and of their brides in combination :—

AGES OF CHINESE BRIDEGROOMS AND THEIR BRIDES IN
COMBINATION, 1888.

Ages of Bridegrooms.				Ages of Brides.						Total Bride- grooms.
				16	18	22	24	29	49	
25	...	...	...	...	1	...	...	...	...	1
26	...	...	...	...	...	...	...	1	...	1
35	...	...	...	...	...	...	1	...	...	1
40	...	...	...	...	1	...	...	...	...	1
45	...	...	...	...	...	1	...	...	...	1
47	...	...	...	...	...	...	...	...	1	1
48	...	...	...	1	...	...	...	...	...	1
51	...	...	...	...	...	...	1	...	...	1
Total Brides ...				1	2	1	2	1	1	8

Ages of
Aborigines
marrying.

57. Of the five male Aborigines who married in 1888, one was a widower, and of their five partners, one was a widow. The ages of bridegroom and bride were set down as follows :—17 and 16, 21 and 22, 24 and 18, 30 and 17, 36 and 38. There was also the marriage of an aboriginal female aged 22 with an Englishman aged 21, described as an agricultural labourer. She was a widow, he a bachelor.

Age at
which per-
sons may
marry.

58. In almost all civilized countries, minors are not permitted to marry without the consent of their parents or guardians, but the youngest age at which persons may marry after obtaining such consent varies in different countries, ranging from 14 for males and 12 for females in the United Kingdom, Switzerland, Spain, Portugal, Greece, and the Roman Catholic portion of the population of Hungary, to 21 for males and 18 for females in the United States. The figures

in the following table, giving information on the subject, have been taken from *The Annual Statistician** for the year 1889 :—

AGE AT WHICH MARRIAGE MAY BE CONTRACTED IN DIFFERENT COUNTRIES.

Country.	Age at, and after, which persons may marry.	
	Males.	Females.
	Years.	Years.
Austria	14	14
Belgium	18	15
France	18	15
Germany	18	14
Greece	14	12
Hungary (Protestants) ...	18	15
„ (Roman Catholics) ...	14	12
Portugal	14	12
Russia	18	16
Saxony	18	16
Spain	14	12
Switzerland	14	12
Turkey	Puberty	Puberty
United Kingdom	14	12
United States	21	18

59. The minimum age at which persons may, with consent, marry, is the same in Victoria as in the United Kingdom, viz., 14 for males and 12 for females; but, as a matter of fact, marriages are seldom contracted at such early ages. One of the males, however, who married in 1888 had not completed his seventeenth year, three more had not completed their eighteenth, and fifteen more had not completed their nineteenth year. Of the brides, seven had not completed their sixteenth, and 58 more had not completed their seventeenth year. As many as 211 of the males, or one in every 42, and no fewer than 1,742 of the females, or about a fifth, had not attained the full age of 21 years. Marriages of minors.

60. From the experience of Victoria during the year 1888, the five years 1881–85, and the decade, 1871–80, it would appear that, in proportion to the total numbers marrying, the males who marry under age are much less numerous in this colony than in England and Wales. The proportion of females marrying under age, which was formerly higher in Victoria than in England, has fallen Marriages of minors in Victoria and England.

* See that work, page 307 : McCarty, San Francisco, California, 1889.

considerably, and in the last two years has been lower than in England. This is shown by the figures in the following table:—

MARRIAGES OF MINORS IN VICTORIA AND ENGLAND AND WALES.

Persons Married.	In every 100 Marriages, Numbers under 21 Years of Age.			
	In Victoria.			In England and Wales. Ten Years: 1871 to 1880.
	Year 1888.	Five Years: 1881 to 1885.	Ten Years: 1871 to 1880.	
Bridegrooms	2·36	2·37	2·52	7·95
Brides	19·47	22·53	28·32	21·96
Mean	10·92	12·45	15·42	14·96

Marriage
rate of
minors.

61. As the proportion of minors at marriageable ages existing in the population may vary greatly in different countries, and in the same country at different times, it will readily be understood that a comparison of the marriages of minors with the total number of marriages does not afford an infallible test of the tendency to marry under age, to determine which accurately the number of minors marrying should be compared with the number of marriageable minors in the population. This has been done for the last two census periods, and the last three years, and the result is given in the following table:—

MARRIAGES OF MINORS, 1871, 1881, AND 1886 TO 1888.

Year.	Number of Marriageable Minors.*		Mean Annual Number of Minors who Married.†		Proportion of Minors who Married to every 1,000 Marriageable Minors Living.	
	Males Aged 17 to 21.	Females Aged 15 to 21.	Males.	Females.	Males.	Females.
1871 ...	19,816	30,306	85	1,305	4·29	43·05
1881 ...	37,675	57,863	151	1,420	4·01	24·54
1886 ...	45,428	62,374	186	1,575	4·09	25·25
1887 ...	47,693	64,948	147	1,525	3·08	23·48
1888 ...	49,260	65,270	211	1,742	4·28	26·69

Decreasing
tendency to
marry
under age.

62. According to the table, the proportion of both males and females marrying under age became considerably reduced between 1871 and 1881, but since the latter year the proportion of both sexes so marrying was again increased, and in 1888 the proportion of male

* Census figures for 1871 and 1881, estimated for the other years.
† Mean number of minors who married in the years 1870 to 1872, and 1883 to 1882, and actual number who married in the other years.

minors marrying was as high as in 1871, whilst that of female minors marrying, although not so high as in 1871 by 16 per 1,000 living, was 2 per 1,000 higher than in 1881.

63. By means of the returns of the last census, it has been possible to analyze still further the marriages of minors, and to show the proportion of the males and females who contract them at each year of age to the total number of males and females living at the same age. Similar results for England and Wales are available,* and are contrasted in the following table with the results relating to Victoria :—

Ages of minors marrying in Victoria and England.

AGES OF MINORS† MARRYING IN VICTORIA AND ENGLAND AND WALES.

Age last Birthday.	Victoria.				Proportion of Marriages per 1,000 Marriageable Minors.			
	Marriageable Minors at Census of 1881.		Minors who Married (Mean of Three Years, 1880 to 1882.)		Males.		Females.	
					Victoria. (Mean of 1880 to 1882.)	England and Wales. (Mean of 1870 to 1872.)	Victoria. (Mean of 1880 to 1882.)	England and Wales. (Mean of 1870 to 1872.)
	Males.	Females.	Males.	Females.				
15	...	10,076	...	11	...	...	1·09	·18
16	...	10,209	...	39	...	·02	3·82	1·53
17	9,718	10,100	3	146	·31	·41	14·45	9·33
18	9,763	9,966	10	282	1·02	4·4	28·29	36·39
19	9,580	9,352	36	443	3·76	20·34	47·37	72·46
20	8,614	8,160	102	499	11·84	52·98	61·15	105·84
Total...	37,675	57,863	151	1,420	4·01	18·32	24·54	34·08

64. It appears that in the case of both males and females the tendency to marry under age is much greater in England and Wales than in Victoria. This, as regards females, is the reverse of the result obtained by comparing the marriages of those under 21 with the total number married.‡ The English proportions relating to males are higher at each age than those of Victoria, but in the first three years of minority the Victorian proportions relating to females are higher than those of England. This, however, is much more than made up in the three succeeding years.

Marriage rate of minors lower in Victoria than England.

65. The following table contains a statement of the proportion of males and females marrying at different ages in various countries.

Age of marriage in various countries.

* See 35th Annual Report of the Registrar-General of England, page xii.
† In this and the preceding table, marriageable minors have been considered to be males from 17 to 21, females 15 to 21. In England, there were 4 marriages of males at 16, but there were none at that age in Victoria.
‡ See table following paragraph 61 ante.

The figures, except those relating to Victoria, which are for the year 1888, and for the decennial period 1871-80, have been taken from the 46th Report of the Registrar-General of England* :—

AGES OF MALES AND FEMALES MARRYING IN VARIOUS COUNTRIES.

Countries.	Per 10,000 of All Ages Marrying, Numbers—						
	Under 20.	20 to 25.	25 to 30.	30 to 40.	40 to 50.	50 to 60.	Over 60.
BRIDEGROOMS.							
Victoria, 1888 ...	80	3,244	3,885	1,968	436	281	106
„ 1871-80 ...	84	2,979	2,958	2,626	971	304	78
England and Wales ...	329	4,805	2,538	1,436	510	256	126
Scotland ...	311	3,919	2,965	1,877	604	237	87
Ireland ...	253	3,003	3,056	2,643	685	242	118
Denmark ...	2,092		3,820	2,968	752	279	89
Norway ...	173	2,681	3,530	2,459	699	458	
Sweden ...	6	2,325	3,569	2,883	778	439	
Russia (in Europe) ...	3,784	3,063	1,230	1,183	549	191	
Austria ...	2,084		4,172	2,311	848	415	170
Hungary ...	3,173		4,571	1,255	604	296	101
Switzerland ...	127	2,525	3,133	2,710	927	404	174
Prussia ...	58	6,716		2,265	624	256	81
Bavaria ...	19	1,875	3,674	3,002	1,244		186
Saxony ...	38	3,432	3,823	1,767	561	278	101
Holland ...	256	2,405	3,370	2,659	846	345	119
Belgium ...	94	2,161	3,467	2,952	885	322	119
France ...	236	2,469	3,757	2,512	622	282	122
Italy ...	107	2,491	3,699	2,611	704	266	122
BRIDES.							
Victoria, 1888 ...	1,242	4,954	2,469	941	256	114	24
„ 1871-80 ...	1,963	4,626	1,747	1,134	414	98	18
England and Wales ...	1,441	4,966	1,911	1,091	407	145	39
Scotland ...	1,338	4,570	2,325	1,314	370	72	11
Ireland ...	1,349	4,899	2,275	1,104	264	77	32
Denmark ...	616	3,608	3,076	2,054	515	112	19
Norway ...	824	3,919	2,889	1,749	476	143	
Sweden ...	555	3,413	3,089	2,225	573	145	
Russia (in Europe)†	5,801	2,120	699	616	229	35	
Austria ...	1,807		2,851	2,881	1,696	590	175
Hungary ...	3,604		3,422	1,604	810	408	152
Switzerland ...	879	3,876	2,498	1,886	656	173	32
Prussia ...	1,030	6,974		1,487	403	92	14
Bavaria ...	644	3,532	2,949	2,061	761		53
Saxony ...	1,073	4,500	2,588	1,305	406	110	18
Holland ...	1,084	3,236	2,897	1,976	599	174	34
Belgium ...	640	3,573	2,770	2,124	647	193	53
France ...	2,116	3,911	2,048	1,374	377	174	
Italy ...	1,692	4,384	2,195	1,254	347	101	27

* Table D., page x.

† The figures, which are those of the Registrar-General of England, add in this line only to 9,500 instead of to 10,000.

66. According to the figures for 1888, fewer males marry under 20 in Victoria than in any of the other countries named, except Sweden, Prussia, Bavaria, and Saxony; but, on the other hand, more females marry under that age in Victoria than in any of those countries except England, Scotland, Ireland, France, Italy, and Russia. Attention is called to the very large proportion shown as marrying under age in the last-named country, exceeding a third of the total marriages in the case of the males, and exceeding half in the case of the females.

Marriages of minors in different countries.

67. The following are the numbers of husbands and wives in each Australasian colony according to the returns of the simultaneous census of 1881, those under and over 21 years of age being distinguished:—

Husbands and wives in Australasian colonies.

HUSBANDS AND WIVES IN EACH AUSTRALASIAN COLONY, 1881.

Colony.	Husbands.			Wives.		
	Under 21 Years.	Over 21 Years.	Total.	Under 21 Years.	Over 21 Years.	Total.
Victoria ...	283	124,371	124,654	3,006	123,036	126,042
New South Wales ...	408	109,810	110,218	4,040	103,793	107,833
Queensland ...	118	30,004	30,122	1,285	28,839	30,124
South Australia ...	95	43,860	43,955	1,344	42,339	43,683
Western Australia ...	15	4,260	4,275	207	3,769	3,976
Total ...	919	312,305	313,224	9,882	301,776	311,658
Tasmania* ...	73	17,671	17,744	607	16,527	17,134
New Zealand ...	97	73,234	73,331	2,374	70,433	72 807
Grand Total ...	1,089	403,210	404,299	12,863	388,736	401,599

68. It is to be regretted that no figures are at hand showing the conjugal condition of males and females at marriageable ages living in countries out of Australasia; but the following table contains a statement of the proportions of those of both sexes and all ages unmarried, married, and widowed in various countries. The figures, except those in the first line, have been taken from *Mulhall's Dictionary of Statistics*†:—

Conjugal condition in various countries.

* In this line the numbers under and over 21 have been partly estimated.

† Page 305.

CONJUGAL CONDITION IN VARIOUS COUNTRIES—BOTH SEXES AND ALL AGES.

Countries.	Numbers in every 1,000 Living.		
	Unmarried.	Married.	Widowed.
Victoria	665	294	41
England	602	345	53
France	511	405	84
Prussia	606	336	58
Wurtemberg	623	319	58
Austria	605	342	53
Hungary	532	407	61
Italy	582	352	66
Switzerland	609	319	72
Spain	572	360	68
Portugal	628	310	62
Holland	611	328	61
Belgium	629	315	56
Scandinavia	618	330	52
Chile	688	260	52

Small proportion of married in Victoria.

69. It appears from this table that, in Victoria, in proportion to the numbers of the population, fewer persons are living in the marriage state than in any of the other countries named, except Chile; and fewer are living in the widowed state than in any of those countries. This is probably in part accounted for by the fact that the proportion living at marriageable ages, especially of males, is smaller in Victoria than in most of those countries.

Births, 1888.

70. The births registered in Victoria during 1888 numbered 34,503, as against 33,043 in 1887. The increase in the year under review, as compared with the previous one, was thus 1,460.

Births in 1888 and former years.

71. During the 20 years ended with 1883, the number of births in Victoria had remained almost stationary; but in 1884 a marked increase took place, which has continued during the four subsequent years, the number of births in 1888 being the highest ever recorded.* The increase between 1888 and 1887, however, (1,460) was not so great as that between 1887 and 1886 (2,219).

Birth rate.

72. In proportion to population, the births decreased steadily for a number of years. The lowest point was reached in 1882, since which year there has been a gradual improvement, the birth rate in

* For number of births in each year, see Statistical Summary of Victoria (first folding sheet), ante.

1888 having been higher than it had been in any year since 1876 The following are the birth rates for the last twenty-nine years :—

ANNUAL BIRTH RATE, 1860 TO 1888.

			Births per 1,000 of Mean Population.				Births per 1,000 of Mean Population.
1860	...	...	42·81	1876	...	...	33·61
1861	...	...	43·46	1877	...	...	32·17
1862	...	...	44·50	1878	...	...	32·36
1863	...	...	42·46	1879	...	...	32·18
1864	...	...	43·79	1880	...	...	30·75
1865	...	...	42·40	1881	...	...	31·24
1866	...	...	39·76	1882	...	...	30·05
1867	...	...	39·75	1883	...	...	30·23
1868	...	...	41·08	1884	...	...	30·89
1869	...	...	37·89	1885	...	...	31·27
1870	...	...	38·07	1886	...	...	31·23
1871	...	...	37·15	1887	...	...	32·40
1872	...	...	36·33	1888	...	...	32·49
1873	...	...	36·71				
1874	...	...	34·46	Mean of 29 years			36·05
1875	...	...	33·94				

73. Birth rates, based upon a comparison of the number of events with the total population, are, like marriage rates calculated upon a similar basis, apt to mislead, unless the population is in a normal condition. It must be quite evident that, if there is not a sufficient proportion of married women at the fruitful or child-bearing ages in a community, the birth rate is not likely to be high, but that an excess of such women would probably cause a high birth-rate. This will be made apparent by the following table, which shows the birth rate, calculated upon the total population and upon the number of married women at the child-bearing period of life, in the last two census years :—

PROPORTION OF BIRTHS TO POPULATION AND TO MARRIED WOMEN.

Year of Census.	Enumerated Population.	Married Women under 45 Years of Age.	Legitimate Births.*	Proportion of Legitimate Births.	
				Per 1,000 of the Population.	Per 1,000 Married Women under 45 Years of Age.
1871	731,528	88,561	26,805	36·64	302·67
1881	862,346	84,831	25,675	29·77	302·66

74. It will be noticed that the married women at reproductive ages were fewer by 3,730 in 1881 than in 1871, that the proportion of births to such women, viz., 302 $\frac{2}{3}$ per 1,000, was exactly the same in

* In both cases, these are the legitimate births which occurred during the twelve months of which the census was the middle.

both years, but that the proportion of births to the total population was considerably less in 1881 than in 1871. Thus, while the birth rate based upon a comparison of the births with the married women remained perfectly steady, that rate based upon a comparison of the births with the population showed a falling-off of nearly 7 per 1,000. The reduction in the birth rate, calculated in the ordinary way, which had been going on for years, is therefore conclusively shown—at any rate so far as the period 1871 to 1881 is concerned—to be due to a deficiency in the community of married women at the fruitful period of life.

Birth rates
in Austral-
asian
colonies.

75. Returns of the births in all the Australasian colonies are available to the end of 1888, and from these and the mean populations of the respective colonies during each year the birth rates have been calculated in the office of the Government Statist, Melbourne. The following table gives the birth rates of the different colonies for each year from 1865 to 1888, or as many years between those periods as the figures are available for:—

BIRTH RATES IN AUSTRALASIAN COLONIES, 1865 TO 1888.*

Year.	Number of Births per 1,000 of Mean Populations.						
	Victoria.	New South Wales.	Queens-land.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1865	42·40	43·21	43·65	43·90	...	32·56	41·12
1866	39·76	40·45	44·86	42·38	...	29·15	42·89
1867	39·75	41·94	45·66	41·87	...	30·34	42·18
1868	41·08	40·72	43·03	41·51	...	30·03	42·14
1869	37·89	40·74	42·83	39·03	...	28·27	41·90
1870	38·07	40·09	43·51	38·48	...	30·18	42·32
1871	37·15	39·63	43·25	38·34	...	30·16	40·64
1872	36·33	38·46	40·70	37·60	32·42	29·44	39·50
1873	36·71	39·38	40·82	36·42	31·43	29·43	39·00
1874	34·46	39·30	41·11	38·22	33·71	29·72	40·27
1875	33·94	38·53	38·90	35·70	28·72	29·88	40·23
1876	33·61	38·56	37·48	37·71	33·98	30·11	41·73
1877	32·17	37·92	36·75	37·36	33·07	30·21	41·28
1878	32·36	38·50	35·77	38·23	31·11	32·27	42·14
1879	32·18	38·99	36·74	38·96	34·38	32·05	40·32
1880	30·75	38·80	36·92	38·94	32·35	32·91	40·78
1881	31·24	38·13	37·19	38·66	33·67	33·40	37·95
1882	30·05	37·37	35·85	37·40	35·84	33·50	37·32
1883	30·23	37·49	36·92	37·37	33·87	34·25	36·28
1884	30·89	38·54	36·23	38·38	33·84	35·66	36·15
1885	31·37	37·64	37·80	38·47	35·22	35·08	34·78
1886	31·23	37·03	37·84	35·70	39·43	34·15	33·15
1887	32·40	36·42	38·09	34·56	37·34	33·87	32·09
1888	32·49	36·20	37·77	33·06	35·88	33·10	31·22
Means ...	34·52	38·92	39·57	38·26	33·89	31·65	39·06

* For the number of births in the various colonies during the sixteen years ended with 1888, see General Summary of Australasian Statistics (third folding sheet) *ante*. See also Appendix A. to the first volume.

76. In 1888 the birth rate was below the average in all the colonies except Western Australia and Tasmania, but it will be noticed that in all except those two the birth rates were exceptionally high in the earlier years to which the table refers, and this has had the effect of raising the average. In the last four years the birth rate has shown a tendency to improve in Victoria and Queensland, but an opposite tendency in most of the other colonies.

77. The following is the order of the colonies in reference to their respective birth rates in the last year shown in the table and according to the average of the whole period of twenty-four years. It will be observed that Victoria stands sixth on the list for 1888, but fifth in the twenty-four-year series :—

ORDER OF AUSTRALASIAN COLONIES IN REFERENCE TO BIRTH RATES.

Order in 1888.	Order in a Series of Years.
1. Queensland.	1. Queensland.
2. New South Wales.	2. New Zealand.
3. Western Australia.	3. New South Wales.
4. Tasmania.	4. South Australia.
5. South Australia.	5. Victoria.
6. Victoria.	6. Western Australia.
7. New Zealand.	7. Tasmania.

78. On the continent of Australia, taken as a whole, the birth rate in 1888 was not only lower than in 1887, but lower than in any except five of the last sixteen years ; whilst on that continent, combined with Tasmania and New Zealand, the birth rate was lower than in any of the other years of that period. The following are the figures for the sixteen years ended with 1888 :—

BIRTH RATE IN AUSTRALIA AND AUSTRALASIA, 1873 TO 1888.

Year.	Number of Births per 1,000 of Mean Populations.		Year.	Number of Births per 1,000 of Mean Populations.	
	Continent of Australia.	Australia with Tasmania and New Zealand.		Continent of Australia.	Australia with Tasmania and New Zealand.
1873	37·36	37·19	1882	34·28	34·78
1874	36·46	36·70	1883	34·54	34·84
1875	35·29	35·82	1884	35·25	34·33
1876	35·20	36·04	1885	35·33	35·22
1877	34·15	35·16	1886	34·85	34·52
1878	34·31	35·51	1887	34·95	34·42
1879	34·55	35·42	1888	34·68	34·03
1880	35·33	36·20			
1881	35·22	35·63	Means	35·11	35·37

Birth rates
in British
possessions.

79. The birth rates in certain British colonies outside Australasia, including all those for which the information is available, are shown in the following table. The low birth rate in Hong Kong is probably owing to the small proportion of women in the population, the bulk of which consists of Chinese males. In Mauritius and Jamaica, considerably more than half the births were stated to be illegitimate. In some cases the figures are only for one or two years :—

BIRTH RATES IN BRITISH POSSESSIONS.

Colonies.	Years.	Number of Births per 1,000 of the population.
Malta	1886	40·0
Ceylon	1886-7	30·0
Straits Settlements	1882-4	19·0
Hong Kong	1882-6	8·5
Mauritius	1886	36·3
Seychelles	1886	39·8
Nova Scotia	1871-5	32·0
Bermudas	1884-5	35·7
British Guiana	1886	35·2
West Indies—		
Bahamas	1874-5	39·0
Jamaica	1886-7	36·0
St. Lucia	1869-87	41·8
St. Vincent	1870-9	46·0
Barbados	1886	41·5
Grenada	1871-5	45·2
Tobago	1886	36·0
Antigua	1875-6	40·4
Montserrat	1886	40·4
Dominica	1871-6	31·0
Trinidad	1886	35·9

Birth rates
in Euro-
pean
countries.

80. A statement of the birth rates in British and certain Foreign countries for each of the five years ended with 1887, is given in the following table. The figures have been taken from the reports of the Registrar-General of England or other official sources :—

BIRTH RATES IN EUROPEAN COUNTRIES, 1883 TO 1887.

Countries.	Number of Births per 1,000 of Mean Population.					
	1883.	1884.	1885.	1886.	1887.	Mean of 5 years.
Hungary	45·3	46·0	...	45·5	..	45·6*
Austria... ..	33·2	38·4	37·4	38·0	38·2	38·0
Italy	37·1	38·7	38·1	36·4	38·3	37·7
Prussia... ..	36·9	37·4	37·6	37·7	37·8	37·5
German Empire... ..	36·6	37·2	37·0	37·1	36·9	37·0
Spain	36·0	37·1	...	...	...	36·5†
Holland	34·3	34·9	34·4	34·6	33·7	34·4

* Mean of three years.

† Mean of two years.

BIRTH RATES IN EUROPEAN COUNTRIES, 1883 TO 1887—*continued*.

Countries.			Number of Births per 1,000 of Mean Population.					
			1883.	1884.	1885.	1886.	1887.	Mean of 5 years.
England and Wales	...	...	33·3	33·4	32·5	32·4	31·4	32·6
Scotland	...	...	32·5	33·4	32·3	32·4	31·2	32·4
Norway	...	...	30·9	31·0	31·3	30·9	...	31·0*
Belgium	...	...	30·5	30·5	29·9	29·6	29·4	30·0
Sweden...	...	...	28·9	30·0	29·6	29·8	...	29·6*
Switzerland	...	...	28·4	28·1	27·5	27·5	...	27·9*
France ...	...	...	24·8	24·8	24·3	23·9	23·5	24·3
Ireland ...	...	...	23·6	24·0	23·5	23·3	23·2	23·5

81. Comparing this table with that showing the marriage rates in the same countries, it is found that a high birth rate is generally concurrent with a high marriage rate, and *vice versa*. A notable exception to this is France, in which, although the marriage rate is high, the birth rate is lower than in any of the countries named, except Ireland. The low rate in the latter is attributed to the small proportion of women at child-bearing ages in the population,† but the low birth rate in France cannot be accounted for by any such cause, as it is stated that the proportion of women at the reproductive period of life is higher in that than in any other European country; the chief, though indirect, cause is said to be—"the sub-division of land among the peasant proprietors. The better class of the labouring population aspire to become proprietors of small holdings; by thrift and industry they accumulate capital for this purpose, and avoid by their social philosophy the division of their property amongst a large family at their decease."‡

Low birth rates in Ireland and France.

82. In the same five years the mean birth rates in New South Wales and Queensland were above those in any of the European countries named, except Hungary, Austria, Italy and Prussia; the mean birth rate in South Australia was above that in any except the last named four countries, together with Germany; the mean birth rates in Western Australia, Tasmania, and New Zealand were below those in the countries named, with the addition of Spain; the mean

Australasian and European birth rates compared.

* Mean of four years.

† See 15th Detailed Report of the Registrar-General of Ireland, pages 12 and 29. For many years the registration of births in Ireland was admitted to be defective, but Dr. T. W. Grimshaw, the Registrar-General of that country, in a letter addressed to the Government Statist of Victoria, dated 6th May, 1886, stated that since the passing of the *Public Health Amended Vaccination and Registration Acts* (1878 to 1880), this is no longer the case, and the births occurring in Ireland are now very well recorded. It may be remarked, however, that this improvement has not been accompanied by any improvement in the birth rate as calculated from the published figures.

‡ See 41st Report of the Registrar-General of England, page xlv.

birth rate in Victoria was below that in any of the countries named in the table except Norway, Belgium, Sweden, Switzerland, France and Ireland. The following are the birth rates referred to:—

MEAN BIRTH RATES IN AUSTRALASIAN COLONIES, 1883 TO 1887.

					Number of Births per 1,000 of Mean Population.
New South Wales	...	...	...	...	37·42
Queensland	...	...	...	...	37·38
South Australia	...	...	...	...	36·90
Western Australia	...	...	...	...	35·94
Tasmania	...	...	...	...	34·60
New Zealand	...	...	...	...	34·49
Victoria	...	...	...	...	31·22

Birth rate in
United
Kingdom.

83. According to the reports of the Registrar-General of England, the birth rate of the United Kingdom was lower in 1887 and the two previous years than in any year since 1870, as will be seen by the following figures:—

BIRTH RATE IN THE UNITED KINGDOM, 1871 TO 1887.

			Births per 1,000 of the Population.				Births per 1,000 of the Population.
1871	...	...	35·0	1881	...	...	32·5
1872	...	...	34·4	1882	...	...	32·2
1873	...	...	34·1	1883	...	...	31·8
1874	...	...	34·5	1884	...	...	32·1
1875	...	...	34·0	1885	...	...	31·3
1876	...	...	34·9	1886	...	...	31·3
1877	...	...	34·5	1887	...	...	30·3
1878	...	...	34·1				—
1879	...	...	33·5	Mean	...	...	33·1
1880	...	...	32·7				—

Birth rates
in town and
country,
1888.

84. The following table shows the births and birth rates, together with the estimated mean population in the metropolis, the extra-metropolitan towns, and the country districts of Victoria during 1888; also the average birth rates in the same divisions during the five years ended with 1885:—

BIRTHS IN URBAN AND COUNTRY DISTRICTS, 1888.

Districts.	Estimated Mean Population, 1888.	Births.		
		Total Number, 1888.	Number per 1,000 of the Population.	
			1888.	Annual Mean, 1881 to 1885.
Melbourne and suburbs (Greater Melbourne)	419,490	15,645	37·30	33·50
Extra-Metropolitan towns	194,870	6,281	32·23	32·54
Country districts	447,690	12,577	28·09	27·82
Total	1,062,050	34,503	32·49	30·74

85. The next table shows the number of births per 1,000 of the population of the same three divisions of the colony during each of the last sixteen years :—

Birth rates
in town and
country,
1873 to 1888

BIRTH RATES IN URBAN AND COUNTRY DISTRICTS, 1873 TO 1888.

Year.	Number of Births per 1,000 of the Population.			
	Greater Melbourne.	Extra-Metropolitan Towns.	Country Districts.	Total of Victoria.
1873 ...	34·36	40·18	36·32	36·71
1874 ...	32·98	39·81	32·46	34·46
1875 ...	33·63	38·63	31·54	33·94
1876 ...	33·20	37·80	31·61	33·61
1877 ...	33·09	34·51	30·30	32·17
1878 ...	33·67	35·42	29·89	32·36
1879 ...	33·32	35·65	29·63	32·18
1880 ...	31·19	34·21	28·72	30·75
1881 ...	32·42	34·76	28·70	31·24
1882 ...	32·85	31·35	27·43	30·05
1883 ...	33·15	32·07	27·22	30·23
1884 ...	33·81	32·80	27·78	30·89
1885 ...	34·94	31·87	28·00	31·27
1886 ...	34·82	31·76	27·87	31·23
1887 ...	37·24	33·30	27·72	32·40
1888 ...	37·30	32·23	28·09	32·49

86. It will be noticed that in the first two years of the period to which the table refers the birth rate of the country districts was about equal to that of the metropolis, whilst the birth rate of the extra-metropolitan towns was very much higher than either. Since 1874, however, the metropolitan rate has been much above that of the country districts, but until 1882 was still below that of the extra-metropolitan towns. In 1882 and the subsequent years, however, owing to a general falling-off in the birth rate of the extra-metropolitan towns and in the country districts, and a gradual increase in that of the metropolis, the rate in the last-named division was much above that in other urban districts. It will also be noticed that, in 1888, the birth rate in the metropolis was higher than in any previous year; in the country districts it was higher than in any other year since 1881, but in the extra-metropolitan towns it was lower than in 1887.

Results compared.

87. The mean population, the number of births, and the birth rate during 1888; also the mean annual birth rate during the five years, 1881 to 1885, in the different municipalities, etc., forming the component parts of the district of Greater Melbourne, are shown in the following table :—

Birth rates
in metro-
politan sub-
districts.

BIRTHS IN GREATER MELBOURNE.

Sub-districts.	Estimated Mean Population, 1888.	Births.		
		Total Number, 1888.	Number per 1,000 of the Population.	
			1888.	Annual Mean, 1881 to 1885.
Melbourne City	74,434	1,808	24·29	25·49
North Melbourne Town	20,720	841	40·59	38·32
Fitzroy City	30,535	1,062	34·78	34·70
Collingwood City	31,230	1,338	42·84	37·35
Richmond City	36,030	1,554	43·13	35·93
Brunswick Town*	14,390	715	49·69	42·27
Northcote Borough	4,625	203	43·89	32·66
Prahran City	37,000	1,287	34·78	31·93
South Melbourne City	39,780	1,416	35·60	34·87
Port Melbourne Borough	11,930	518	43·42	41·18
St. Kilda Borough	17,345	460	26·52	25·35
Brighton Town	8,255	255	30·89	28·97
Essendon Borough	8,700	342	39·31	} 32·88
Flemington and Kensington Borough	7,645	341	44·60	
Hawthorn Town	13,237	534	40·34	29·82
Kew Borough... ..	5,320	148	27·82	24·20
Footscray Town	13,030	662	50·81	42·50
Williamstown Town	13,075	553	42·29	35·35
Remainder of district	26,680	1,022	38·31	29·72
<i>Hospitals, Asylums, etc.</i> †	4,051	586	...	...
Shipping in Hobson's Bay and River	1,478	...	...	...
Total	419,490	15,645	37·30	33·50

NOTE.—It should be specially noted that the births in Public Institutions are eliminated from the individual sub-districts, although included in the total line.

Birth rates
in sub-dis-
tricts, 1881
to 1885.

88. It will be observed that during the five years ended with 1885 the births in three municipalities, viz., Brunswick, Port Melbourne, and Footscray, averaged above 40 per 1,000 of the population; that in four municipalities, viz., North Melbourne, Collingwood, Richmond, and Williamstown, they were between 35 and 40 per 1,000; in five municipalities, viz., Fitzroy, Northcote, Prahran, South Melbourne, and Essendon and Flemington, they were between 30 and 35 per 1000; and that in five municipalities, viz., Melbourne City, St. Kilda, Brighton, Hawthorn, and Kew, as also in "Remainder of District," they were below 30 per 1,000. The lowest rate was in Kew, viz., only a fraction over 24 per 1,000.

Birth rates
in sub-dis-
tricts, 1888.

89. During 1888, the birth rates in all the sub-districts except Melbourne City, were higher than they were in the five years ended with

* Brunswick (Borough) was proclaimed a Town on the 10th April, 1888.

† The population given is that of all the institutions, but the Lying-in Hospital is the only one in which births occurred.

1885. The sub-district with the highest birth rate in 1885 was Footscray, which was closely followed by Brunswick, Flemington, Northcote, and Port Melbourne; those with the lowest rates were Melbourne City, St. Kilda, and Kew; in all of which the rates were below 30 per 1,000.

90. In 1888, the birth rate in Melbourne was lower than that in Brisbane, Sydney, or Adelaide, but above that in Perth, Wellington, or Hobart, as is shown in the following table, which gives, for that year, a statement of the estimated population and the number of births, and number per 1,000 of the population, in each of those capital cities:—

BIRTHS IN AUSTRALASIAN CAPITAL CITIES, 1888.

Capital Cities.*	Estimated Mean Population.	Births, 1888.	
		Total Number.	Number per 1,000 of the Population.
Brisbane	85,800	3,744	43·64
Sydney	357,690	13,707	38·32
Adelaide	115,380	4,371	37·88
Melbourne	419,490	15,645	37·30
Perth	9,300	343	36·88
Wellington	30,590	1,036	33·87
Hobart	34,419	1,039	30·19

91. The average birth rate in the Australasian capital cities in 1888 was 37·9, which was higher than the rate in London, according to the average of the ten years 1876–85, viz., 34·7, which was a fraction higher than that of England and Wales (34·4) during the same period. The rate in London was thus higher than that in Wellington or Hobart, but below that in any of the other Australasian cities named in the last table.

92. In the five years ended with 1885 the mean birth rate of the principal towns of Scotland was 36·07; of the large towns, 35·52; and of the small towns, 33·50. All these rates are much below the mean birth rate of the Australasian capital cities or than the birth rate of Melbourne.

93. By comparing the following statement of the birth rates in British towns during 1887 with the figures in the last column of the last table, it will be found that the birth rate is higher in Brisbane than

* With Suburbs.

in any of those towns; in Sydney, Adelaide, and Melbourne, than in any except Cardiff, Newcastle, and Preston; in Perth, than in any except those towns and Glasgow; and in Wellington, than in any except those towns and Portsmouth, Manchester, Blackburn, Sunderland, and Norwich; whilst the birth rate in Hobart is lower than in any of the towns in the list except Derby, Bristol, Edinburgh, Halifax, Dublin, Bradford, Huddersfield, and Brighton:—

BIRTH RATES IN BRITISH TOWNS, 1887.

Births per 1,000 of the Population.			Births per 1,000 of the Population.		
Cardiff ...	...	41·1	28 British Towns ...	...	32·2
Newcastle ...	...	39·1	Salford ...	...	31·9
Preston ...	...	38·5	Birmingham ...	...	31·8
Glasgow ...	...	37·0	London ...	...	31·7
Portsmouth ...	...	36·8	Plymouth ...	...	31·5
Manchester...	...	35·9	Oldham ...	...	31·3
Blackburn ...	...	35·8	Liverpool ...	...	31·2
Sunderland...	...	34·6	Derby ...	...	30·0
Norwich ...	...	33·9	Bristol ...	...	29·7
Nottingham ...	...	33·3	Edinburgh ...	...	29·3
Wolverhampton ...	...	33·2	Halifax ...	...	28·4
Sheffield ...	...	32·9	Dublin ...	...	28·0
Leicester ...	...	32·8	Bradford ...	...	27·7
Bolton ...	...	32·5	Huddersfield ...	...	27·7
Birkenhead...	...	32·5	Brighton ...	...	25·8

Birth rates
in Foreign
towns.

94. Comparing the birth rates in the following Foreign towns (including two in British India), with those in the capital cities of Australasia, it will be found that the birth rate in Brisbane is above that in any of the towns named; the birth rate in Sydney is above that in all but 5, in Adelaide above all but 8, in Melbourne and Perth above all but 10, in Wellington above all but 13, and in Hobart above all but 17, of the towns:—

BIRTH RATES IN FOREIGN TOWNS, 1880.

Births per 1,000 of Population.			Births per 1,000 of Population.		
Alexandria ...	...	42·9	Dresden ...	...	34·5
Madras (1887) ...	...	41·2	Christiania ...	...	33·7
Buda-Pesth ...	...	40·6	Berlin (1887) ...	...	32·6
Hamburg (State) ...	...	39·5	Brussels ...	...	31·2
The Hague ...	...	39·3	New York ...	...	30·4*
Rotterdam ...	...	38·3	Turin ...	...	29·8
Vienna ...	...	38·3	Boston (1883) ...	...	28·3
Munich ...	...	38·2	Paris (1887) ...	...	27·2
Rome ...	...	37·3	Venice ...	...	23·9
Copenhagen ...	...	36·8	Geneva ...	...	22·9
Breslau ...	...	36·7	Bombay ...	...	20·0
Amsterdam ...	...	36·6			

* The number of births registered in New York would give a proportion of 22·8 per 1,000 of the population, but it is officially stated that the registered births are 25 per cent. below the actual number which take place, so that the correct proportion is as here stated.

95. The following are the birth rates in six Victorian towns during 1888; the rate in the metropolis being, as will be observed, below the rates in Sandhurst and Stawell, but above those in Ballarat, Geelong, or Castlemaine:—

BIRTH RATES IN SIX VICTORIAN TOWNS, 1888.

		Births per 1,000 of Population.			Births per 1,000 of Population.
Sandhurst	...	41·53	Ballarat	...	31·43
Stawell	...	39·29	Geelong	...	31·41
Melbourne	...	37·29	Castlemaine	...	26·97

96. The births of males in Victoria during 1888 numbered 17,617, those of females 16,386. These numbers furnish a proportion of 104·33 boys to 100 girls, as against a proportion of 104·39 in 1887, and of 104·53 in 1886. In the ten years 1871-80, 137,275 births of males and 131,435 births of females were registered, giving a proportion of 104·45 boys to 100 girls.

97. In every country in which births are registered, it is found that more boys are born than girls. This was the case in all the Australasian colonies during the period of fifteen years ended with 1887, although not in every one of those years so far as Western Australia and Tasmania are concerned. The following are the numbers of boys per 100 girls born in the respective colonies during each year of the period referred to:—

PROPORTION OF MALE TO FEMALE BIRTHS IN AUSTRALASIAN COLONIES, 1873 TO 1887.

Year.	Number of Boys to 100 Girls Born.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1873 ...	102·65	104·38	106·13	102·77	109·04	98·44	103·48
1874 ...	103·94	104·31	105·74	103·44	103·25	107·02	106·83
1875 ...	104·95	102·08	104·01	103·85	98·95	109·51	107·80
1876 ...	105·76	102·47	105·26	101·08	106·76	111·48	106·01
1877 ...	104·19	106·34	106·78	102·91	101·32	105·04	104·59
1878 ...	107·19	106·83	103·89	107·14	101·15	105·52	101·57
1879 ...	104·69	105·71	103·36	102·53	117·59	99·11	105·93
1880 ...	104·44	104·99	103·63	110·98	92·37	101·56	104·71
1881 ...	104·99	105·59	106·64	106·48	108·07	107·41	104·90
1882 ...	103·63	103·23	107·55	106·36	110·64	104·81	104·46
1883 ...	105·04	104·89	106·17	103·29	104·64	110·42	105·17
1884 ...	105·98	105·37	102·25	104·40	106·42	103·37	104·28
1885 ...	106·44	104·88	102·50	101·57	108·00	104·36	103·59
1886 ...	104·53	106·35	102·51	104·48	115·90	108·99	104·72
1887 ...	104·39	103·09	105·24	109·70	103·26	106·63	103·35

Order of
colonies in
respect to
sexes of
those born.

98. In the Australasian colonies, taken as a whole, the proportion during the five years ended with 1887 was 105·32 male to 100 female infants. In the different colonies, the proportions ranged from 107·64 males per 100 females in Western Australia to 103·73 males per 100 females in Queensland. The following is the order of the colonies in respect to these proportions :—

ORDER OF COLONIES IN REFERENCE TO PROPORTION OF MALE TO
FEMALE BIRTHS, 1883 TO 1887.

Boys to 100 Girls.			Boys to 100 Girls.		
Western Australia	...	107·64	New Zealand	...	104·22
Tasmania	...	106·75	Queensland	...	103·73
Victoria	...	105·28			
New South Wales	...	104·92	Mean	...	105·32
South Australia	...	104·69			

Births of
males and
females in
certain
countries.

99 The proportions of male to female births in the countries included in the following list have been derived from official sources. The averages for the Australasian colonies extend over the ten years 1878 to 1887, and those for the other countries named extend over periods of various lengths :—

PROPORTION OF MALE TO FEMALE BIRTHS IN VARIOUS
COUNTRIES.

Boys to 100 Girls.			Boys to 100 Girls.		
Greece	...	112·0	Scotland	...	105·7
Roumania	...	111·0	Ireland	...	105·6
Connecticut	...	110·0	Tasmania	...	105·3
Italy	...	107·1	Victoria	...	105·1
Spain	...	107·0	New South Wales	...	105·1
Western Australia	...	106·8	Sweden	...	105·0
Austria	...	106·8	Denmark	...	105·0
France	...	106·4	Russia in Europe	...	105·0
Switzerland	...	106·3	Finland	...	105·0
German Empire	...	106·2	Vermont	...	105·0
Holland	...	106·1	Rhode Island	...	105·0
Norway	...	106·0	Queensland	...	104·4
Servia	...	106·0	New Zealand	...	104·3
Massachusetts	...	106·0	England and Wales	...	104·3
Belgium	...	105·9	Russian Poland	...	104·1
South Australia	...	105·7			

Australasian
and other
countries
compared.

100. It will be observed that the proportion of boys born to girls is in Western Australia below that in 5, and in South Australia below that in 14 countries out of Australasia; whilst the proportion in Tasmania, Victoria, and New South Wales, is above that in only 8, and in Queensland and New Zealand, above that in only 2 of such countries.

101. In England and Wales the proportion of boys born to girls is not only lower than that in any other European country, except Russian Poland (of which the statistics are of doubtful authenticity), but it has for years past had a tendency to diminish. The proportion given in the table (104 3) is for the fifty years ended with 1887, but in the ten years ended with that year, it was only 103·8. The Registrar of England states he is unable to offer any explanation of that "curious fact.*"

Low proportion of boys born in England.

102. In 1888, 374 twin births and 3 triple births were registered, as against 285 twin births and 3 triple births in 1887. In the five years ended with 1885, 1,105 cases of twins and 10 cases of triplets were recorded, the total number of births in the same period having been 140,258. There were thus 139,133 confinements in the five years, and it follows that 1 mother in every 126 gave birth to twins, and 1 mother in every 13,913 was delivered of three children at a birth. Moreover, during the decade 1871 to 1880, 1 mother in every 111, on the average, gave birth to twins, and one in every 12,796 was delivered of three children at a birth.

Twins and triplets.

103. It appears that only three of the Australasian colonies besides Victoria distinguish the double and treble births in their returns. The following are the numbers of such births in each of the four colonies during each of the five years ended with 1887 :—

Twins and triplets in Australasian colonies.

TWINS AND TRIPLETS IN AUSTRALASIAN COLONIES, 1883 TO 1887.

Year.	Victoria.		New South Wales.		Queensland.		New Zealand.	
	Twins.	Triplets.	Twins.	Triplets.	Twins.	Triplets.	Twins.	Triplets.
1883	183	...	287	2	103	...	...	...
1884	239	4	288	4	94	...	188	2
1885	237	1	306	2	115	...	161	1
1886	236	...	330	1	114	1	165	...
1887	285	3	310	1	105	...	185	3

104. The following figures purport to express the proportions of twins and triplets to the total births in different countries over a series of years; but as they have not in all cases been derived from official sources, they must be taken only for what they may be worth. The countries are arranged in order, according to the proportion of twin births said to occur in each :—

Twins and triplets in various countries.

* See 43rd Report of the Registrar General of England, page xvi.

TWINS AND TRIPLETS IN VARIOUS COUNTRIES.

Countries.	Per 1,000 Births.		Countries.	Per 1,000 Births.	
	Cases of Twins.	Cases of Triplets.		Cases of Twins.	Cases of Triplets.
Ireland ...	17·6	...	Norway ...	11·8	·15
Iceland ...	14·2	·33	Scotland ...	11·7	...
Denmark ...	13·7	·24	England ...	11·2	...
Sweden ...	13·6	·18	France ...	10·1	·12
Austria ...	13·4	·18	Belgium ...	9·1	·10
Germany ...	12·9	·13	Queensland ...	9·1	·012
Holland ...	12·8	...	New Zealand ...	8·96	·077
Russia ...	12·1	...	New South Wales	8·75	·058
Switzerland ...	12·0	...	Spain ...	8·4	...
Italy ...	11·8	·14	Victoria ...	7·85	·053

NOTE.—Some of the figures in this table have been taken from Mulhall's *Dictionary of Statistics*, page 50.

Results in different countries compared.

105. In proportion to the total number of births, fewer births of twins appear to occur in Victoria than in any of the other countries named; moreover, all the Australasian colonies stand low on the list. Ireland, it will be observed, stands at the head of the list, whilst England and Scotland have—except the Australasian colonies—only three countries below them. There are no records of treble births in Ireland, Holland, Russia, Switzerland, Scotland, England, or Spain, although doubtless some occur in those countries, where it is possible they are included with the twin births.

Illegitimate births.

106. The illegitimate children born in 1888 numbered 1,658, or 1 to every 21 births registered; this was the same proportion as in 1886 and 1887, but in 1885 and 1884 the proportion was 1 to every 23. In the five years, 1881–85, out of 140,258 infants born, 6,491 were traced as having been born out of wedlock, which numbers furnish a proportion of 1 illegitimate child to every 22 births; as compared with an average during the ten years ended with 1880 of 1 to every 27 births.*

Women living in concubinage.

107. It was shown in a previous table† that the legitimate births registered in each of the last two census years were in the proportion of 302 $\frac{2}{3}$ to every 1,000 married women living at the reproductive period of life. It follows, therefore, from the number of legitimate births registered in 1888, that, approximately, 108,500 married women at the fruitful or child-bearing age were living in the colony during

* For many reasons, statistics of illegitimacy generally understate the truth.—See remarks upon the subject in the *Victorian Year-Book* 1877–8, paragraph 259.
† See table following paragraph 73 *ante*

that year. Assuming that the illegitimate births bear the same proportion to unmarried women, it also follows, from the number of such births in 1888, that, exclusive of public prostitutes (who, as they rarely have children, are omitted from the computation), at least 5,475 single women at the fruitful or child-bearing ages were living in concubinage. If from the total number of women in the colony between the ages of 15 and 45—estimated to be about 241,500—be deducted the approximate number of married women above referred to, viz., 108,500, the difference will give 133,000 as the number of unmarried women and widows at those ages. It therefore follows that 1 out of every 24 of these was living immorally.

108. The following table gives a statement of the number of illegitimate births and their proportion to the total number registered; also the estimated number of women living in concubinage, and their proportion to the total number of single women at reproductive ages living, in Victoria, according to the returns of the last sixteen years :—

ILLEGITIMACY AND CONCUBINAGE, 1873 TO 1888.

Year.	Illegitimate Births.		Women Living in Concubinage (exclusive of Public Prostitutes).	
	Total Number.	Percentage of Total Births.	Estimated Total Number.	Number per 100 Single Women between 15 and 45 Years of Age Living in Victoria.
1873	893	3.18	2,951	4.54
1874	984	3.67	3,251	4.41
1875	779	2.92	2,573	3.36
1876	975	3.64	3,221	4.02
1877	1,010	3.88	3,337	3.85
1878	1,103	4.15	3,644	4.20
1879	1,304	4.86	4,308	4.78
1880	1,254	4.80	4,143	4.39
1881	1,382	5.09	4,551	4.49
1882	1,271	4.75	4,200	3.91
1883	1,292	4.69	4,268	3.72
1884	1,238	4.29	4,090	3.46
1885	1,308	4.36	4,320	3.54
1886	1,465	4.75	4,840	3.87
1887	1,580	4.78	5,214	4.12
1888	1,658	4.81	5,475	4.12
Means	1,218	4.29	4,025	4.03

Illegitimacy
and concu-
binage,
1873 to
1888.

Illegitimacy
in Austral-
asian
colonies.

109. All the Australasian colonies, except South Australia and Western Australia, now publish statistics of illegitimacy. According to these, which possibly may not in every case represent the whole truth,* illegitimacy, over a series of years, was most rife in New South Wales, next in Victoria, next in Tasmania, next in Queensland, and least of all in New Zealand; but in 1886 and 1887, the illegitimacy rate was higher in Victoria than in any other colony. In most of the colonies, so far as figures are available, illegitimacy appears to have a tendency to increase. The following table shows the percentage of illegitimate to the total births, in the five colonies which publish the information, during a series of years :—

ILLEGITIMACY IN AUSTRALASIAN COLONIES, 1872 TO 1887.

Year.	Illegitimate Births to every 100 Children Born.				
	Victoria.	New South Wales.	Queensland.	Tasmania.	New Zealand.
1872	2.99	4.03	2.92	...	...
1873	3.18	4.15	2.71	...	1.42
1874	3.67	4.22	2.76	...	1.30
1875	2.92	4.20	3.43	...	1.36
1876	3.64	4.08	3.21	...	2.23
1877	3.88	4.14	3.64	...	2.08
1878	4.15	4.03	3.68	...	2.41
1879	4.86	4.51	4.31	...	2.30
1880	4.80	4.35	4.31	...	2.43
1881	5.09	4.26	4.20	...	2.85
1882	4.75	4.24	4.40	4.40	2.87
1883	4.69	4.24	3.66	3.96	2.78
1884	4.29	4.40	4.05	4.46	2.96
1885	4.36	4.60	4.08	4.55	3.20
1886	4.75	4.65	3.97	4.13	3.12
1887	4.78	4.59	4.49	3.40	3.22
Means	4.17	4.29	3.74	4.15	2.43

Concubi-
nage in
Austral-
asian
colonies.

110. A calculation, based upon the illegitimate births which occurred in the census year, shows that of the four colonies which then published statistics of these occurrences concubinage was most rife in Queensland, next in New South Wales, and next in Victoria and New Zealand, there being only a slight difference between the two last-named colonies. In the following table the colony in which the largest proportion of concubinage existed is placed first, and that in which the smallest proportion existed last :—

* See footnote to paragraph 106 ante.

CONCUBINAGE IN AUSTRALASIAN COLONIES, 1881.

Colony.	Single Women between 15 and 45 Years of age.	Illegitimate Births, 1881.	Single Women living in Concubinage (exclusive of Public Prostitutes).	
			Total Number.	Number per 100 Single Women, between 15 and 45.
1. Queensland ...	15,441	345	1,059	6·86
2. New South Wales	71,085	1,263	3,665	5·16
3. Victoria ...	101,451	1,382	4,551	4·49
4. New Zealand ...	38,659	534	1,686	4·36

111. The figures in the last column show the proportions which the single women leading a sexually immoral life, without being public prostitutes, bore to the whole number of single women at the fruitful period of life in each of the four colonies. These proportions will, perhaps, be better understood if expressed in another manner as follow:—

In Queensland	1 single woman in 13 was living immorally.
In New South Wales	„ „ 19 „ „
In Victoria	„ „ 22 „ „
In New Zealand	„ „ 23 „ „

112. Illegitimacy in England and Wales appears to be commoner than, and in Scotland more than twice as rife as, it is in any of the Australasian colonies named. In Ireland, on the other hand, it seems to be less prevalent than in any of those colonies except New Zealand. This will be observed by comparing the following table with the previous one:—

ILLEGITIMACY IN ENGLAND, SCOTLAND, AND IRELAND,
• 1871 to 1887.

Year.	Illegitimate Births to every 100 Children born.		
	England and Wales.	Scotland.	Ireland.
1871 ...	5·6	9·5	2·7
1872 ...	5·4	9·1	2·5
1873 ...	5·2	9·0	2·4
1874 ...	5·0	8·7	2·3
1875 ...	4·8	8·6	2·3
1876 ...	4·7	8·6	2·3
1877 ...	4·7	8·4	2·4
1878 ...	4·7	8·4	2·3
1879 ...	4·8	8·5	2·5

ILLEGITIMACY IN ENGLAND, SCOTLAND, AND IRELAND,
1871 TO 1887—*continued.*

Year.	Illegitimate Births to every 100 Children born.		
	England and Wales.	Scotland.	Ireland.
1880	4·8	8·4	2·5
1881	4·9	8·3	2·5
1882	4·9	8·1	2·7
1883	4·8	8·1	2·6
1884	4·7	8·1	2·7
1885	4·8	8·5	2·8
1886	4·7	8·2	2·7
1887	4·8	8·3	2·8
Means	4·9	8·5	2·5

Illegitimacy
in various
countries.

113. The following figures, taken from various sources, show certain countries arranged in order according to the extent of illegitimacy prevailing in each, the proportion of illegitimate births being also shown:—

ILLEGITIMACY IN VARIOUS COUNTRIES.

Country.	Illegitimate Births to every 100 Children Born.	Country.	Illegitimate Births to every 100 Children Born.
Austria	12·9	England	4·9
Denmark	11·2	Switzerland	4·6
Sweden	10·2	New South Wales	4·3
Scotland	8·5	Victoria	4·2
Norway	8·5	Tasmania	4·2
Germany	8·4	Queensland	3·7
France	8·1	Holland	3·5
Belgium	7·0	Russia	3·1
Italy	6·8	Ireland	2·5
Portugal	5·6	New Zealand	2·4
Spain	5·5	Greece	1·6

Position of
Victoria in
respect to
illegiti-
macy.

114. According to the figures, more illegitimacy prevails in Austria and less in Greece than in any other countries. In Victoria, illegitimacy appears to be less prevalent than in fourteen and more so than in six of the countries.

Illegitimacy
in town and
country.

115. It will be readily supposed that a larger proportion of illegitimacy prevails in Melbourne and suburbs than in any other district of Victoria, and that the proportion in the country districts is the smallest of all. In 1888, in the metropolitan district about 1 birth in 15, in extra-metropolitan towns 1 birth in 22, but in country districts only 1 birth in 42 was registered as illegitimate. In the previous year the proportions were 1 in 14, 1 in 22, and 1 in 44 respectively.

116. By the following figures, which, with the exception of those for Melbourne, have been taken from the annual report for 1886 of the Statistical Department of the Argentine Republic,* it would appear that illegitimacy is less rife in the capital of this colony than in any of the foreign cities named:—

ILLEGITIMACY IN LARGE CITIES.

	Illegitimate Births to every 1,000 Children Born.		Illegitimate Births to every 1,000 Children Born.
Vienna ...	449	Liège ...	174
Prague ...	439	Christiania ...	162
Munich ...	439	Stuttgart ...	160
Stockholm ...	396	Berlin ...	154
Moscow ...	300	Ghent ...	144
Buda-Pesth ...	299	Hamburg ...	138
Copenhagen ...	279	Frankfort ...	132
Paris ...	268	Turin ...	132
St. Petersburg ...	236	Antwerp ...	129
Trieste ...	211	Cologne ...	124
Leipsic ...	211	Palermo ...	101
Dresden ...	208	The Hague ...	90
Milan ...	204	Naples ...	89
Rome ...	194	Rotterdam ...	76
Venice ...	189	Buenos Aires ...	74
Breslau ...	186		
Bucharest ...	175	Melbourne ...	69

117. To ascertain the relative fruitfulness of women in different countries, it is necessary to compare the number of married women at the reproductive ages with the legitimate births. This can be done in the case of Victoria, New South Wales, Queensland, and New Zealand; but not in that of the other Australasian colonies, as in the returns of the latter no distinction was made at the time the census was taken between the infants born in and those born out of wedlock. By means of such a comparison in regard to the four colonies named, it would appear that the highest degree of fecundity exists in New South Wales, and the lowest in Victoria, this being probably owing to the fact that the married women are, on the average, younger in the former and older in the latter than in the other two colonies. The following table shows the number of married women under 45 years of age, the number of legitimate births in the census year, and the proportion of such births to such women in each of the four colonies:—

* *Procedimientos del Departamento Nacional de Estadística*, 1886, page 87. Buenos Aires, 1887.

PROPORTION OF BIRTHS TO MARRIED WOMEN IN AUSTRALASIAN
COLONIES.*

Colony.	Married Women under 45 Years of age.	Legitimate Births, 1881.	
		Total Number.	Number per 100 Married Women under 45.
1. New South Wales ...	80,473	27,730	34·46
2. Queensland ...	24,183	7,875	32·56
3. New Zealand ...	57,464	18,198	31·67
4. Victoria ...	84,831	25,763†	30·37†

Children to
a marriage
in Victoria.

118. Another method of determining the fecundity of women is to find the average number of children born to a marriage, which may be ascertained approximately by dividing the legitimate births in any year by the number of marriages in the preceding year. The following is the result of such a calculation for Victoria during the fifteen years ended with 1888:—

CHILDREN TO A MARRIAGE, 1874 TO 1888.

Year.	Legitimate Births.	Marriages in Year prior to that named in first Column.	Average Number of Children to a Marriage.
1874 ...	25,816	4,974	5·19
1875 ...	25,941	4,925	5·27
1876 ...	25,794	4,985	5·17
1877 ...	25,000	4,949	5·05
1878 ...	25,478	5,103	4·99
1879 ...	25,535	5,092	5·01
1880 ...	24,894	4,986	4·99
1881 ...	25,763	5,286	4·87
1882 ...	25,476	5,896	4·32
1883 ...	26,249	6,309	4·16
1884 ...	27,612	6,771	4·08
1885 ...	28,667	7,218	3·97
1886 ...	29,359	7,395	3·97
1887 ...	31,463	7,737	4·07
1888 ...	32,845	7,768	4·23
Sums and Mean ...	405,892	89,394	4·54

Decrease in
children to
a marriage
in Victoria.

119. The figures show a steady diminution in the proportion of children born, amounting—notwithstanding a slight revival in the last two years named—in the fifteen years to about one child per marriage. It is evident that if the births increased with the marriages

* The Government Statistician of Tasmania gives the proportion of births—including illegitimate births—to married women under 45 years in that colony in 1881 as 347 per 1,000, as compared with 326 per 1,000 in New Zealand, and 309 per 1,000 in Victoria, during the same year.

† In consequence of the births here quoted being those for the calendar year, these figures differ slightly from those in table following paragraph 73 *ante*.

as they should do, the proportions would remain steady ; but this is shown not to be the case. There are, however, many matters affecting the birth rates of infants respecting which it is not possible to obtain precise information. The falling off shown by the figures in the last column of the table is a result which, although perhaps it cannot be proved, may be conjectured to be owing to the increasing desire on the part of married women to evade the cares of maternity, and the steps taken by them—often, no doubt, with the concurrence of their husbands—to prevent its occurrence.

120. According to this mode of reckoning, it would appear that there are, upon the average, fewer children to a marriage in Victoria than in New Zealand, New South Wales, Queensland, or Tasmania. For the other two colonies the information cannot be given, as their returns make no distinction between illegitimate children and children born in wedlock :—

Children to a marriage in Australasian colonies.

CHILDREN TO A MARRIAGE IN AUSTRALASIAN COLONIES,
1880 TO 1887.

Year.	Average Number of Children to a Marriage.				
	Victoria.	New South Wales.	Queensland.	Tasmania.	New Zealand.
1880 ...	4.99	5.00	4.89	...	5.54
1881 ...	4.87	5.48	5.09	...	5.72
1882 ...	4.32	4.53	4.78	4.51	5.63
1883 ...	4.16	4.31	4.68	4.22	5.18
1884 ...	4.08	4.38	4.28	3.91	5.33
1885 ...	3.97	4.68	4.39	4.62	5.18
1886 ...	3.97	4.54	4.25	4.21	4.90
1887 ...	4.07	4.55	4.63	4.64	5.31
Means ...	4.30	4.68	4.62	4.35	5.35

121. It seems that in all the colonies except Tasmania there is a tendency for the average number of children to a marriage to decrease in numbers. It will be noticed, moreover, that in each colony except that colony and Queensland the figures for the last year are smaller than those of the first, and are also smaller than those expressing the mean of the whole period.

Decrease in children to a marriage in each colony.

122. The following statement of the average number of children born to a marriage in certain countries has been derived from various sources. The figures are generally for a series of years. The country having the highest average is placed first in order, and the remainder in succession :—

Children to a marriage in various countries.

CHILDREN TO A MARRIAGE IN VARIOUS COUNTRIES.

Children to each Marriage.			Children to each Marriage.		
Ireland ...	...	5·46	Holland ...	...	4·34
New Zealand ...	...	5·35	Victoria ...	...	4·30
New South Wales ...	...	4·68	Belgium ...	...	4·21
Queensland ...	...	4·62	England ...	...	4·16
Italy ...	...	4·56	Sweden ...	...	4·01
Scotland ...	...	4·43	Denmark ...	...	3·55
Tasmania ...	...	4·35	France ...	...	2·98

Position of
Victoria in
reference
to births to
a marriage.

123. Ireland is at the head of the list, and New Zealand follows immediately after, but it may be questioned whether the high proportion in the former does not in some degree result from the fact that the registration of marriages there* is more defective than that of births. It will be observed that Ireland, Italy, Scotland, and Holland are the only countries out of Australasia which stand above Victoria.

Surviving
children to
a family.

124. The foregoing calculations relate to the average number of children born to each married couple, but the eminent statistician, M. Jacques Bertillon, in a paper read before the Statistical Society of Paris on the 10th May, 1888,† has given the following as the average number of children actually surviving in each family in the Department of the Seine at the time the French census of 1886 was taken :—

In every 1,000 families there were—

328 with no child surviving			
270	"	1	" "
198	"	2 children	" "
106	"	3	" "
54	"	4	" "
25	"	5	" "
12	"	6	" "
7	"	7 or more	" "

Sterile
families.

125. With reference to the startling fact that nearly a third of the families referred to were completely sterile, it will be remembered that this group contains a certain number of couples too recently married to have children; still the proportion appears enormous. It is to be regretted that similar figures relating to other countries are not available for purposes of comparison.

Births in
each
quarter.

126. According to the registrations, births in Victoria are always most numerous in the winter quarter, and next so in the autumn quarter. The proportion of births in the spring and summer quarters varies in different years, the advantage being generally in favour of the former. The following are the numbers and percentage for 1888, and the percentage for a previous quinquennial and a decennial period :—

* See footnote (†) to table following paragraph 81 ante.

† See *Journal de la Société de Statistique de Paris*, 1888, page 174, et seq.

BIRTHS IN EACH QUARTER.

Seasons.	Quarter ended on the last day of—	Year 1888.		Percentage in—	
		Number of Births.	Percentage.	Five Years : 1881 to 1885.	Ten Years : 1871 to 1880.
Summer ...	March ...	7,915	22·94	23·57	23·74
Autumn ...	June ...	8,862	25·69	25·64	25·10
Winter ...	September ...	9,078	26·31	26·62	27·15
Spring ...	December ...	8,648	25·06	24·17	24·01
	Year ...	34,503	100·00	100·00	100·00

127. In the following table the average proportion of births occurring in each quarter in Victoria during a series of years is compared with that proportion in the opposite, and consequently (so far as seasons are concerned) corresponding quarter in certain countries of the northern hemisphere. The figures for such countries have been taken from Mr. Mulhall's work*.—

Births in each quarter in various countries.

PERCENTAGE OF BIRTHS IN EACH QUARTER IN VARIOUS COUNTRIES

Countries.	Quarter ending on the last day of—			
	March in Victoria, September in other Countries.	June in Victoria, December in other Countries.	September in Victoria, March in other Countries.	December in Victoria, June in other Countries.
	Per Cent.	Per Cent.	Per Cent.	Per Cent.
Victoria ...	23·6	25·6	26·6	24·2
England ...	24·0	23·8	26·2	26·0
France ...	24·0	24·1	27·0	24·9
Germany ...	25·0	24·9	25·9	24·2
Sweden ...	23·7	25·7	26·8	23·8
Italy ...	23·7	24·7	27·5	24·1
Russia ...	24·7	23·7	25·6	26·0

128. It appears that in most countries the largest number of births take place in what may be called the winter quarter (ending September in Victoria, March in other countries), the exception being Russia, in which most births occur in the quarter ending June. Fewest births occur in what may be called the summer quarter (ending March in Victoria, September in other countries), except in Germany, where the proportion in the quarter ending June is the smallest, and in England and Russia, where it is the smallest in the quarter ending December.

Quarters in which most and fewest births occur.

Deaths, 1888. 129. The deaths registered in 1888 numbered 16,287, as against 16,005 in 1887. The increase in the year under notice was thus 282.

Deaths, 1888 and former years. 130. In the last two years, the deaths have exceeded 16,000; in 1886 they numbered less than 15,000, and only in one prior year, viz., 1875, did they reach that number. The high mortality in the last-named year, in which 15,287 deaths were recorded, was due to the prevalence of measles and scarlatina in an epidemic form.*

Excess of births over deaths. 131. The births in 1888 exceeded the deaths by 18,216, or 112 per cent., the corresponding proportion being 106 per cent. in the two previous years. In the five years ended with 1885 the proportion averaged 110 per cent.; and in the ten years ended with 1880 it averaged 119 per cent.; whilst during the whole period of twenty-three years ended with 1888 the average was 119 per cent. The following were the births and deaths in each of those twenty-three years, and the excess of the former over the latter:—

EXCESS OF BIRTHS OVER DEATHS, 1866 TO 1888.

Year.	Births.	Deaths.	Excess of Births over Deaths.	
			Numerical.	Centesimal.
				Per Cent.
1866	25,010	12,286	12,724	104
1867	25,608	11,733	13,875	118
1868	27,243	10,067	17,176	171
1869	26,040	10,630	15,410	145
1870	27,151	10,420	16,731	161
1871	27,382	9,918	17,464	176
1872	27,361	10,831	16,530	153
1873	28,100	11,501	16,599	144
1874	26,800	12,222	14,578	119
1875	26,720	15,287	11,433	75
1876	26,769	13,561	13,208	97
1877	26,010	12,776	13,234	104
1878	26,581	12,702	13,879	109
1879	26,839	12,120	14,719	121
1880	26,148	11,652	14,496	124
1881	27,145	12,302	14,843	121
1882	26,747	13,634	13,113	96
1883	27,541	13,006	14,535	112
1884	28,850	13,505	15,345	114
1885	29,975	14,364	15,611	108
1886	30,824	14,952	15,872	106
1887	33,043	16,005	17,038	106
1888	34,503	16,287	18,216	112
Total in 23 years	638,390	291,761	346,629	119

* For the number of deaths during each year since the first settlement of Port Phillip, see Statistical Summary of Victoria (first folding sheet) *ante*.

132. It will be noticed that the births more than doubled the deaths in all the years except 1882, 1876, and 1875.

Years in which births doubled deaths.

133. Of the Australasian colonies, New Zealand is the one in which the births have always exceeded the deaths by the highest proportion. This is due to the high birth rate and low death rate prevailing in that colony, the latter being no doubt promoted by the salubrity of the climate of New Zealand, but still more so by the circumstance of the population being spread over the country or dispersed throughout a number of small towns, instead of being to a great extent crowded into a few large cities, as is too much the case in the other colonies. The position of Victoria in regard to the proportionate increase of births over deaths is below any of the other colonies. The following table shows the percentage of excess of births over deaths in each of the Australasian colonies during the respective years 1878 to 1887, both inclusive. The colonies are arranged in order, that with the highest mean percentage being placed first, and that with the lowest last:—

Excess of births over deaths in Australasian colonies.

EXCESS OF BIRTHS OVER DEATHS IN AUSTRALASIAN COLONIES, 1878 TO 1887.

Colony.	Excess per Cent. of Births over Deaths.										Mean of 10 years.
	1878.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	
New Zealand ...	283	224	256	241	233	217	246	224	215	212	235
South Australia ...	148	177	162	167	147	152	147	202	164	175	164
New South Wales ...	135	164	151	151	132	155	139	129	149	177	148
Queensland ...	75	145	172	148	99	96	56	87	126	162	117
Tasmania ...	106	111	104	126	112	101	130	128	134	119	117
Western Australia ...	121	138	144	144	153	89	55	100	82	122	115
Victoria ...	109	121	124	121	96	112	114	109	106	106	112

134. In 1888 the percentage of excess of births over deaths in Melbourne was below that in any of the Australasian capital cities except Hobart, as will be seen by the following figures:—

Excess of births over deaths in Australasian capitals.

EXCESS OF BIRTHS OVER DEATHS IN AUSTRALASIAN CAPITAL CITIES, 1888.

Per cent.			Per cent.		
Wellington ...	...	166	Perth ...	...	90
Brisbane ...	...	157	Melbourne ...	...	82
Sydney ...	...	119	Hobart ...	...	45
Adelaide ...	...	119			

Excess of
births over
deaths in
European
countries.

135. The following table shows the percentage of excess of births over deaths in certain European countries during each of the five years ended with 1887. The countries are arranged in order according to the means of the quinquennial period shown in the last column, the country with the highest mean being placed first, and the rest in succession :—

EXCESS OF BIRTHS OVER DEATHS IN EUROPEAN COUNTRIES,
1883 TO 1887.

Countries.	Excess per Cent. of Births over Deaths.					
	1883.	1884.	1885.	1886.	1887.	Mean of 5 years.
Norway	81	89	91	92	...	88*
Denmark	72	82	82	79	75	78
Sweden	67	71	66	79	...	71*
England and Wales	70	71	71	69	67	69
Scotland	63	72	69	74	67	69
The Netherlands	57	57	64	58	71	61
Prussia	45	46	48	45	58	48
Belgium	47	46	49	40	52	47
German Empire	41	43	44	42	53	45
Hungary	39	47	41	41	...	42*
Italy	35	45	43	29	38	38
Switzerland	40	40	31	34	38	37
Austria	27	31	25	29	32	29
Ireland	23	36	28	30	27	29
France	12	9	10	6	7	9

Excess of
births over
deaths in
Australia
and else-
where.

136. It will be observed that deaths bear a much larger proportion to births in all the countries named than they do in any of the Australasian colonies, part of which difference is probably due to the Australian climate being more healthy and the circumstances of the colonies more favourable to longevity, and part to the fact that the countries named contain a larger proportion than the colonies of the young and the very old. In not one of those countries did the births double the deaths in any year of the period. On the other hand, in the Australasian colonies, it is the exception for the births not to double the deaths, and in one of them (New Zealand) it is the exception for the births not to be three times as numerous as the deaths.†

Natural
increase of
population.

137. In 1888 the population of Victoria increased at the rate of 1·76 per cent. by excess of births over deaths, at which rate, irrespective of immigration, the population would double itself in 41 years. In each of the ten years ended with 1888 the rate of increase from the same cause was as follows :—

* Mean of 4 years.

† See paragraph 133 ante.

INCREASE OF POPULATION BY EXCESS OF BIRTHS OVER DEATHS,
1879 TO 1888.

Per Cent.			Per Cent.		
1879 ...	...	1.78	1885 ...	...	1.65
1880 ...	...	1.70	1886 ...	...	1.63
1881 ...	...	1.73	1887 ...	...	1.70
1882 ...	...	1.49	1888 ...	...	1.76
1883 ...	...	1.61			
1884 ...	...	1.66	Mean	...	1.66

138. Comparing the mean of the ten years ended with 1885 with similar means for the other Australasian colonies during the same period the figures are as follow:—

Natural
increase in
Austral-
asian
colonies.

MEAN ANNUAL INCREASE BY EXCESS OF BIRTHS OVER DEATHS
IN AUSTRALASIAN COLONIES, 1876-1885.

Per Cent.			Per Cent.		
1. New Zealand	...	2.78	5. Western Australia	...	1.82
2. South Australia	...	2.39	6. Tasmania	...	1.72
3. New South Wales	...	2.28	7. Victoria	...	1.66
4. Queensland	...	1.90			

139. Sir Rawson W. Rawson, in the opening address delivered by him as President of the Statistical Society of London in 1885, gave the following as the mean annual rates of increase by excess of births over deaths in various countries, the averages extending generally over the nineteen years ended with 1883. The countries have here been arranged in order according to the rate of increase shown in each country:—

Natural
increase
various
countries.

MEAN ANNUAL RATE OF INCREASE BY EXCESS OF BIRTHS OVER
DEATHS IN VARIOUS COUNTRIES.

Per Cent.			Per Cent.		
Servia	...	1.69	Ireland	...	.86
Poland (Russian)	...	1.51	Finland	...	.85
England and Wales	...	1.37	Alsace-Lorraine	...	.80
Russia in Europe	...	1.37	Italy	...	.77
Norway	...	1.36	Greece	...	.76
Saxony	...	1.34	Connecticut	...	.76
Scotland	...	1.33	Austria	...	.74
German Empire	...	1.24	Switzerland	...	.71
Prussia	...	1.23	Rhode Island	...	.69
Thuringia	...	1.19	Vermont	...	.67
Denmark	...	1.16	Croatia and Slavonia	...	.66
Sweden	...	1.13	Massachusetts	...	.65
Holland	...	1.13	Spain	...	.48
Württemberg	...	1.11	Hungary	...	.48
Baden	...	1.05	Roumania	...	.32
Belgium	...	.91	France	...	.16
Bavaria	...	.89			

Results in various countries compared.

140. According to the figures, the rate of natural increase (excess of births over deaths) is a fraction higher in Servia than in Victoria, but with this exception, the rate in every one of the Australasian colonies is higher than in any of the countries named. It will be noticed that England and Wales stands near the head of the list, Scotland lower, and Ireland very much lower, also that in France the rate of natural increase is much below that in any other country.

Deaths of males and females.

141. In Victoria, deaths of males in 1888 numbered 9,385, and deaths of females, 6,902. These numbers furnish a proportion of nearly 74 females to every 100 males, as against a similar proportion in 1886-87 and in the five years 1881-85, and a proportion of 75 females to every 100 males in the ten years 1871-80. Females in the total population were in the proportion of 88 to every 100 males during the last two years and during the quinquennium referred to, and of about 87 during the decennium; therefore at each period more males and fewer females died than their relative numbers in the population might have given reason to expect.

Annual death rate.

142. The following table shows the estimated mean population of either sex, the number of deaths of either sex, and the death rate of males and females, and of both sexes, during each of the last twenty-eight years :—

ANNUAL DEATH RATE, 1861 TO 1888.

Year.	Estimated Mean Population.		Number of Deaths.		Deaths per 1,000 of the Mean Population.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.*
1861 ...	324,988	214,836	6,124	4,398	18·84	20·47	19·49
1862 ...	322,916	225,164	5,900	4,180	18·27	18·56	18·39
1863 ...	325,680	237,280	5,646	3,856	17·34	16·25	16·88
1864 ...	335,272	251,178	5,202	3,685	15·51	14·67	15·15
1865 ...	347,083	264,135	6,158	4,303	17·74	16·29	17·11
1866 ...	353,941	275,097	7,016	5,270	19·82	19·16	19·53
1867 ...	359,642	284,634	6,613	5,120	18·39	17·99	18·21
1868 ...	367,752	295,340	5,865	4,202	15·95	14·23	15·18
1869 ...	379,396	307,806	6,221	4,409	16·40	14·32	15·47
1870 ...	392,159	321,036	6,114	4,306	15·59	13·41	14·61
1871 ...	403,319	333,686	5,845	4,073	14·49	12·21	13·46
1872 ...	409,081	344,117	6,308	4,523	15·42	13·14	14·38
1873 ...	412,597	352,914	6,565	4,936	15·91	13·99	15·02
1874 ...	416,725	360,931	6,994	5,228	16·78	14·48	15·72
1875 ...	419,779	367,558	8,563	6,724	20·40	18·29	19·42

* The total mean population and the total deaths in each year may be obtained by taking the sum of the figures in the male and female columns.

ANNUAL DEATH RATE, 1861 TO 1888—continued.

Year.	Estimated Mean Population.		Number of Deaths.		Deaths per 1,000 of the Mean Population.		
	Males.	Females.	Males.	Females.	Males.	Females.	Total.*
1876 ...	422,931	373,627	7,716	5,845	18·24	15·64	17·02
1877 ...	427,727	380,878	7,345	5,431	17·17	14·26	15·80
1878 ...	433,153	388,313	7,179	5,523	16·57	14·22	15·46
1879 ...	438,563	395,467	7,033	5,087	16·04	12·86	14·53
1880 ...	446,445	403,898	6,610	5,042	14·81	12·48	13·70
1881 ...	456,107	412,835	7,024	5,278	15·40	12·78	14·16
1882 ...	467,630	422,590	7,900	5,734	16·89	13·57	15·32
1883 ...	478,865	432,117	7,410	5,596	15·47	12·95	14·28
1884 ...	491,720	442,174	7,675	5,830	15·60	13·18	14·46
1885 ...	505,716	452,879	8,300	6,064	16·41	13·39	14·98
1886 ...	522,203	464,891	8,575	6,377	16·42	13·72	15·15
1887 ...	541,070	478,630	9,213	6,792	17·03	14·19	15·70
1888 ...	565,065	496,985	9,385	6,902	16·61	13·89	15·34
Average of twenty-eight years ...					16·73	14·51	15·70

NOTE.—In 1861, 1866, and 1875, and to a certain extent in the preceding and in the succeeding years, the death rate was swelled by epidemics of measles and scarlatina.

143. It will be noticed that in all the years, except 1861 and 1862, death bore more hardly upon males than upon females. The figures in the lowest line of the table show that, over a period of twenty-eight years, the deaths of males per 1,000 of the same sex living exceeded by 2 the deaths of females per 1,000 of that sex living.

Male and female death rate compared.

144. It has been held by high authority† that in countries in which the climate is healthy, hygiene properly attended to, and the population in a normal condition as regards age, the ordinary mortality incident to human nature would probably cause the death rate to be in the proportion of about 17 per 1,000 persons living. It should, however, be borne in mind that death rates based merely upon the total population, in common with birth and marriage rates calculated upon a like basis, are not always fair tests of the state of a community. If the proportion of very young or old people is high, the death rate will be also high; but if, on the other hand, the number of persons at the middle ages is excessive, the death rate will be low. It will be remarked that the mortality exceeded

Normal death rate.

* The total mean population and the total deaths in each year may be obtained by taking the sum of the figures in the male and female columns.

† See page ix. of the late Dr. Farr's letter dated 5th February, 1875, published in the Supplement to the 35th Annual Report of the Registrar-General of England. London: Eyre & Spottiswoode, 1875. Also *Victorian Year-Book*, 1875, paragraph 342; *Victorian Year-Book*, 1876-7, paragraph 169; and *Victorian Year-Book*, 1877-8, paragraph 271.

17 per 1,000 seven times in the twenty-eight years named in the table, but over the whole period it has averaged below 16 per 1,000. In the last twelve years it has never been so high as 16 per 1,000, whilst in six of those years it was below 15 per 1,000, in one being even below 14 per 1,000.

Low mor-
tality in
census
years 1871
and 1881.

145. In 1871 the death rate of both males and females was the lowest recorded during the whole period of twenty-eight years, after which and the death rate in 1880 the next lowest death rate was in 1881; it thus happened that the last two census years, viz., 1871 and 1881, were years of exceptionally low mortality. Such a circumstance occurring at two successive census periods is apt to mislead those who attempt, without due allowance, to base conclusions upon the relation which exists between the number of deaths and the population of the colony, as derived from the results of the census years alone.

Death rate,
1888 and
previous
years.

146. In 1888, the death rate of males was lower than in the years 1861 to 1863, 1865 to 1867, 1874 to 1877, or than in 1882 or 1887, but was higher than in every other year since 1860; that of females was lower than in the years 1861 to 1869, 1873 to 1878, or than in 1887, but higher than in the other years of the period. Taking the mean of the two sexes, the death rate in 1888, although slightly below the average, was higher than that in fourteen out of the twenty-eight years of the period referred to in the table.

Death rates
in Austral-
asian colo-
nies.

147. The proportion which the deaths that occurred in each Australasian colony bore to the total population of that colony during each of the twenty-four years from 1865 to 1888 will be found in the following table:—

DEATH RATES IN AUSTRALASIAN COLONIES, 1865 TO 1888.*

Year.	Number of Deaths per 1,000 of Mean Populations.						
	Victoria.	New South Wales.	Queensland	South Australia.	Western Australia.	Tasmania.	New Zealand.
1865 ...	16·97	16·49	21·42	14·30	...	13·40	15·13
1866 ...	19·37	17·57	25·67	17·20	...	13·79	12·86
1867 ...	18·06	19·76	17·80	17·48	...	14·48	12·78
1868 ...	15·00	15·92	17·36	14·41	...	14·70	11·94
1869 ...	15·47	14·17	16·20	12·37	...	13·20	11·73
1870 ...	14·61	13·38	14·59	13·94	...	13·88	11·13
1871 ...	13·46	12·61	14·83	12·87	...	13·38	10·13

* For the number of deaths in the various colonies during the last sixteen of the years named, see General Summary of Australasian Statistics (third folding sheet) *ante*.

DEATH RATES IN AUSTRALASIAN COLONIES,
1865 TO 1888—*continued*.*

Year.	Number of Deaths per 1,000 of Mean Populations.						
	Victoria.	New South Wales.	Queensland	South Australia.	Western Australia.	Tasmania.	New Zealand.
1872 ...	14.38	14.18	14.97	15.33	14.02	13.79	11.68
1873 ...	15.02	13.98	16.06	13.48	16.24	14.52	12.67
1874 ...	15.72	15.33	17.98	17.05	18.74	16.21	13.05
1875 ...	19.42	18.42	23.80	19.45	17.88	20.00	15.92
1876 ...	17.02	18.53	18.82	16.28	14.18	16.54	12.66
1877 ...	15.80	15.69	17.29	13.99	15.70	19.17	11.47
1878 ...	15.46	16.36	20.41	15.44	14.07	15.66	11.01
1879 ...	14.53	14.76	14.97	14.09	14.46	15.18	12.46
1880 ...	13.70	15.47	13.59	14.85	13.24	16.12	11.46
1881 ...	14.16	15.17	15.02	14.49	13.80	14.77	11.13
1882 ...	15.32	16.12	17.99	15.15	14.16	15.79	11.19
1883 ...	14.28	14.68	18.82	14.83	17.93	17.06	11.45
1884 ...	14.46	16.14	22.97	15.52	21.87	15.50	10.39
1885 ...	14.98	16.42	20.19	12.73	17.61	15.40	10.74
1886 ...	15.15	14.89	16.77	13.52	21.67	14.58	10.54
1887 ...	15.70	13.15	14.56	12.59	16.83	15.45	10.29
1888 ...	15.34	13.54	14.66	11.83	15.91	14.11	9.43
Means ...	15.56	15.53	17.78	14.72	16.37	15.28	11.80

148. Considerable fluctuations in the death rates have occurred from year to year, and the fact of such fluctuations being generally simultaneous indicates some connexion between the different colonies. Thus a high rate of mortality prevailed, more especially in the continental colonies, in 1866 and 1867 (in Queensland extending also to 1868), which was caused by the presence of an epidemic of measles and scarlatina; Tasmania and New Zealand appear on this occasion to have almost entirely escaped, as their death rates were but little affected. Moreover, in 1875-6 a high death rate—caused by the same complaints—also occurred in all the colonies of the group. In like manner, low death rates prevailed in all the colonies about 1870 and 1871, extending in the case of some of them to 1872; also about 1880 and 1881. In Queensland and Western Australia a period of high mortality occurred also in 1884, but this did not extend to the other colonies, in most of which for several years past the mortality has been comparatively low.

Fluctuations in the death rate coincident in different colonies.

149. In the twenty-four years over which the observations extend, the normal death rate of 17 per 1,000 persons living was reached in Queensland thirteen times, in Victoria, New South Wales, and South

Normal death rate in colonies.

* See footnote (*) page 62.

Australia four times, in Tasmania three times, and in New Zealand not at all. In the last seventeen of those years it was reached seven times in Western Australia. Queensland is the only one of the colonies in which, over a series of years, the death rate has exceeded 17 per 1,000.

Order of colonies in respect to death rates.

150. According to the average of a series of years, the death rate of Queensland was much higher, and that of New Zealand much lower, than that of any of the other colonies; the death rate of Western Australia comes next to that of Queensland; the average death rates differ but slightly from one another in Victoria, New South Wales, and Tasmania; but the average death rate in South Australia is lower than that of these three. In 1888, the death rate of Victoria appears to have been higher than that of any of the other colonies except Western Australia. The following is the order of the colonies in reference to their respective death rates; the colony with the highest rate being placed first, and that with the lowest last:—

ORDER OF AUSTRALASIAN COLONIES IN REFERENCE TO DEATH RATES.

Order in 1888.	Order over a Series of Years.
1. Western Australia.	1. Queensland.
2. Victoria.	2. Western Australia.
3. Queensland.	3. Victoria.
4. Tasmania.	4. New South Wales.
5. New South Wales.	5. Tasmania.
6. South Australia.	6. South Australia.
7. New Zealand.	7. New Zealand.

Death rate in Australia and Australasia.

151. The death rate of the colonies situated upon the continent of Australia taken in combination, and the death rate of those colonies with the addition of Tasmania and New Zealand, are shown in the following table for the sixteen years ended with 1888:—

DEATH RATE IN AUSTRALIA AND AUSTRALASIA, 1873 TO 1888.

Number of Deaths per 1,000 of Mean Population.			Number of Deaths per 1,000 of Mean Population.		
Year.	Continent of Australia.	Australia with Tasmania and New Zealand.	Year.	Continent of Australia.	Australia with Tasmania and New Zealand.
1873 ...	14·43	14·20	1882 ...	15·85	15·02
1874 ...	15·73	15·36	1883 ...	15·06	14·51
1875 ...	19·08	18·63	1884 ...	16·35	15·29
1876 ...	17·12	16·37	1885 ...	15·89	14·97
1877 ...	15·23	14·77	1886 ...	15·15	14·33
1878 ...	15·72	14·94	1887 ...	14·27	13·64
1879 ...	14·06	13·84	1888 ...	14·20	13·39
1880 ...	14·47	14·01			
1881 ...	14·62	14·01	Means ...	15·46	14·83

152. It will be noticed that in 1875 and 1876 the mortality on the Australian continent exceeded 17 per 1,000, but in no other years; also that it exceeded that rate upon the continent combined with the colonies of Tasmania and New Zealand only in 1875. It will further be noticed that in 1888 the rate for the continent was, with one exception, the lowest recorded in any of the years, and that for the whole of Australasia was absolutely the lowest during the same period.

Normal
death rate
in Australia
and Aus-
tralasia.

153. The following table shows the death rates in as many British colonies outside Australasia as the particulars are available for. In many cases the average extends only over a short period, and in few, if any, of the colonies are the conditions affecting the duration of human life similar to those prevailing in the Australasian group:—

Death rates
in certain
British
possessions

DEATH RATES IN BRITISH POSSESSIONS.

Colonies.	Years.	Number of Deaths per 1,000 of the Population.
Malta	1886	27·0
Ceylon	1886-7	23·8
Straits Settlements	1881-4	27·9
Hong Kong	1879-86	26·6
Mauritius	1886	32·5
Seychelles	1886	20·1
St. Helena	1871-5	13·2
Gambia	1882	51·5
Nova Scotia	1871-5	12·1
Bermudas	1875-85	24·5
British Guiana	1871-83	33·7
West Indies—		
Bahamas	1874-5	22·6
Jamaica	1883-7	22·9
St. Lucia	1869-84	25·3
St. Vincent	1886	23·0
Barbados	1886	25·7
Grenada	1883-4	21·0*
Tobago	1886	21·0
Antigua	1883-4	39·5
Montserrat	1883-6	20·4
Dominica	1882-3	17·3
Trinidad	1883-6	27·8*

154. In all the European countries of which the information is at hand, the mean annual death rates are much higher than in any of the Australasian colonies except Queensland, and the mean death rate in that colony is lower than in any of the countries named except Norway and Sweden. Moreover, in all with the exception of Norway,

Death rates
in European
countries.

* Inclusive of still-births, which are recorded as deaths.

the mean annual death rate is above 17 per 1,000, and, with the same exception and that of Sweden (once), in not one of those countries did the annual death rate during any of the years named ever fall as low as 17 per 1,000; whilst in Hungary, on the other hand, the average death rate per 1,000 amounts to nearly twice that proportion. In the following table, the countries are arranged in the order of their mean death rates, as shown in the last column:—

DEATH RATES IN EUROPEAN COUNTRIES, 1883 TO 1887.

Countries.	Number of Deaths per 1,000 of Mean Population.					
	1883.	1884.	1885.	1886.	1887.	Mean of 5 Years.
Hungary	32·6	31·4	...	32·2	...	32·1*
Austria	30·1	29·2	29·9	29·4	28·9	29·5
Italy	27·5	26·7	26·6	28·3	27·7	27·4
German Empire ...	25·9	26·0	25·7	26·2	24·2	25·6
Spain	33·1	31·1	...	...	...	32·1†
Prussia	25·3	25·5	25·7	26·0	23·9	25·3
France	22·2	22·2	22·0	22·5	22·0	22·2
The Netherlands ...	21·8	22·2	21·0	21·8	19·7	21·3
Switzerland	20·3	20·1	21·1	20·4	...	20·5‡
Belgium	20·8	20·9	20·1	21·1	19·3	20·4
England and Wales ...	19·5	19·6	19·0	19·3	18·8	19·2
Scotland	20·1	19·4	19·1	18·6	18·7	19·2
Denmark	18·4	18·4	17·9	18·2	18·3	18·3
Ireland	19·2	17·6	18·4	17·9	18·3	18·3
Sweden	17·3	17·5	17·8	16·6	...	17·3‡
Norway	17·1	16·4	16·5	16·1	...	16·5‡

Death rate
in United
Kingdom.

155. According to the reports of the Registrars-General of England and Scotland, the death rate of the latter country approximates very closely to that of the former, but in Ireland it is considerably lower than in the other two countries. § The figures for the United Kingdom during each of the seventeen years ended with 1887 were as follow:—

DEATH RATE IN THE UNITED KINGDOM, 1871 TO 1887.

Deaths per 1,000 of the Population.			Deaths per 1,000 of the Population.		
1871 ... ..	...	22·6	1881 ... ..	...	18·7
1872 ... ..	...	20·9	1882 ... ..	...	19·2
1873 ... ..	...	20·8	1883 ... ..	...	19·5
1874 ... ..	...	21·6	1884 ... ..	...	19·3
1875 ... ..	...	22·2	1885 ... ..	...	18·9
1876 ... ..	...	20·5	1886 ... ..	...	19·0
1877 ... ..	...	20·0	1887 ... ..	...	18·7
1878 ... ..	...	21·2			
1879 ... ..	...	20·5			
1880 ... ..	...	20·4			
			Mean ... ..	...	20·2

* Mean of three years.

† Mean of two years.

‡ Mean of four years.

§ Formerly the registrations in Ireland were admitted to be defective; but the Registrar-General of that country states that in recent years much improvement has taken place—especially since the passing of certain Acts of Parliament in the years 1878-80; and he has reason to believe that, at the present time, but few deaths escape registration.

156. In every country the death rate is higher in towns than it is in the extra-urban districts. This circumstance, although no doubt partly attributable to the superior healthfulness and immunity from contagion prevailing in the latter, is also to a great extent due to the fact that hospitals and charitable institutions, which are frequented by patients from the country as well as by town residents, are generally situated in the towns; and further, that outside of charitable institutions many persons die who have come from the country on the approach of serious illness for the sake of the superior nursing and medical attendance to be obtained in town. In 1888, the death rate was higher in Melbourne and suburbs than in the country towns, whilst in the former it was nearly two and a half times as high, and in the latter more than twice as high as in the country districts. The following are the figures for that year:—

Death rates
in town and
country,
1888.

DEATHS IN URBAN AND COUNTRY DISTRICTS, 1888.

Districts.	Estimated Mean Population.	Deaths, 1888.	
		Total Number.	Number per 1,000 of the Population.
Melbourne and suburbs (Greater Melbourne)	419,490	8,606	20·52*
Extra-metropolitan Towns	194,870	3,812	19·56
Country districts ...	447,690	3,869	8·64
Total ...	1,062,050	16,287	15·34

157. The number of deaths per 1,000 of the estimated population of the metropolitan towns (Greater Melbourne), the extra-metropolitan towns, and the country districts of Victoria is given in the following table for each of the last sixteen years:—

Death rate
in town and
country,
1873 to
1888.

DEATH RATES IN URBAN AND COUNTRY DISTRICTS, 1873 TO 1888.

Years.	Number of Deaths per 1,000 of the Estimated Population.			
	Greater Melbourne.	Extra-Metropolitan Towns.	Country Districts.	Total of Victoria.
1873 ...	19·86	18·50	9·65	15·02
1874 ...	21·27	20·47	9·09	15·71
1875 ...	25·82	26·03	11·24	19·42
1876 ...	21·84	23·00	10·45	17·02
1877 ...	21·18	20·07	9·86	15·80
1878 ...	20·12	20·21	9·83	15·46
1879 ...	19·23	18·65	9·17	14·53
1880 ...	18·70	17·65	8·13	13·70

* The death rate in Greater Melbourne during 1888 would be reduced to 16·89 per 1,000 persons living, if the deaths which occurred in the metropolitan hospitals, asylums, etc., should be eliminated from the total.

DEATH RATES IN URBAN AND COUNTRY DISTRICTS,
1873 TO 1888—*continued*.

Years.	Number of Deaths per 1,000 of the Estimated Population.			
	Greater Melbourne.	Extra-Metropolitan Towns.	Country Districts.	Total of Victoria.
1881 ...	19·32	19·44	7·91	14·16
1882 ...	21·02	20·24	8·94	15·32
1883 ...	19·46	18·81	8·33	14·28
1884 ...	20·54	18·74	7·86	14·46
1885 ...	20·15	18·88	9·00	14·98
1886 ...	20·42	19·27	8·75	15·15
1887 ...	21·25	20·64	8·65	15·70
1888 ...	20·52*	19·56	8·64	15·34

NOTE.—In 1875, and to a certain extent in the preceding and succeeding years, the death rate was swelled by epidemics of measles and scarlatina.

Normal death rate in town and country.

158. It will be noticed that in twelve of the years, including the last seven years, the death rate in Melbourne and suburbs was above that in the other town districts; but in the other four years the death rate in the extra-metropolitan towns was the higher. The greater mortality in proportion to population prevailing in the urban than in the country districts is very striking in all the years. In the former the mortality was invariably much above the normal 17 per 1,000 persons living, whilst in country districts it was always very considerably below that rate.

Death rates in town and country districts of England.

159. In England and Wales, during the ten years 1876–85, the death rate in urban districts was 21·5 per 1,000, and in country districts, 18·0 per 1,000; the difference between these rates being not nearly so great as in similar divisions of Victoria.†

Death rates in Melbourne and suburbs.

160. The following table shows the mean population, the number of deaths, and the proportion of the latter to the former, in 1888, also the number of deaths to every 1,000 persons living during the period of five years commencing with 1881 and ending with 1885, in each of the different municipalities and other sub-districts forming the component parts of the district of Melbourne and suburbs (Greater Melbourne). In order to render the rates of the various districts comparable as far as possible, the deaths in hospitals and similar institutions have been eliminated from the districts in which they occurred, and are shown separately near the foot of the table:—

* See footnote (*) on page 67.

† See 48th Report of the Registrar-General of England, page lxxv.

DEATHS IN GREATER MELBOURNE.

Sub-districts.	Estimated Mean Population, 1888.	Deaths.		
		Total Number.	Number per 1,000 of the Population.*	
			1888.	Annual Mean 1881 to 1885.
Melbourne City	74,434	1,170	15·72	16·28
North Melbourne Town	20,720	391	18·87	18·12
Fitzroy City	30,535	515	16·87	18·15
Collingwood City	31,230	615	19·69	19·40
Richmond City	36,030	685	19·01	18·09
Brunswick Town †	14,390	282	19·59	17·25
Northcote Borough	4,625	80	17·30	11·33
Prahran City	37,000	644	17·40	16·00
South Melbourne City	39,780	675	16·96	17·03
Port Melbourne Borough	11,930	220	18·44	18·73
St. Kilda Borough	17,345	246	14·18	13·31
Brighton Town	8,255	123	14·90	13·82
Essendon Borough	8,700	114	13·10	12·85
Flemington and Kensington Borough	7,645	114	14·91	
Hawthorn Town	13,237	172	12·99	12·79
Kew Borough	5,320	63	11·84	11·50
Footscray Town	13,030	227	17·42	16·66
Williamstown Town	13,075	215	16·44	16·53
Remainder of district	26,680	452	16·94	13·23
Shipping in Hobson's Bay and river	1,478†	13	...	9·20
Total	415,439	7,016	16·89	16·55
Hospitals, asylums, etc. §	4,051	1,590	3·79||	3·84||
Grand Total	419,490	8,606	20·52	20·11

161. It will be observed that in 1888 the death rates in fourteen of the sub-districts, viz., Collingwood, Richmond, and Prahran Cities; North Melbourne, Brunswick, Brighton, Hawthorn, and Footscray Towns; Northcote, St. Kilda, Essendon, Flemington, and Kew Boroughs; and the "Remainder of district," were above the average of the quinquennial period, the excess, however, being in most cases only slight.

Death rates
in 1888 and
series of
years.

* In order to compare the death rate with density of population, see table following paragraph ante.

† Brunswick, formerly a Borough, was proclaimed a Town on the 10th April, 1888.

‡ Census figures.

§ Includes the Melbourne, Alfred, Women's, Children's, and Homœopathic Hospitals, and the Immigrants' Home, all situated in Melbourne City; the Benevolent Asylum, which is on the boundary between North Melbourne Town and Melbourne City; the Home of the Little Sisters of the Poor, which is in Northcote; the Metropolitan Lunatic Asylum, which is in Kew Borough; and the Yarra Bend Lunatic Asylum and the Austin Hospital for Incurables, which are in "Remainder of district."

|| Per 1,000 of the population of the whole of Melbourne and suburbs.

Places in
which death
rate was
highest and
lowest.

162. The only sub-district which, according to the average of five years, had a higher death rate than 19* per 1,000 is the low-lying and still imperfectly drained locality of Collingwood; the next highest death rate prevailed in the shipping borough of Port Melbourne, and next in the densely populated suburbs of Fitzroy, North Melbourne, and Richmond. In 1888 the highest death rates were in Brunswick, Collingwood, and Richmond—all with rates above 19 per 1,000—followed by North Melbourne, and Port Melbourne. During the period of five years, after the shipping, the lowest death rates were in Northcote and Kew; the next in Essendon and Flemington, and Hawthorn; and the next in the "Remainder of district," St. Kilda, and Brighton. In 1888 the lowest death rate was in Kew, then in Hawthorn, Essendon, and St. Kilda, in the order named.

Sub-districts
with death
rates over
17 per 1,000

163 The death rate of Greater Melbourne, taken as a whole, in the calculation of which the deaths in charitable institutions are included, was $20\frac{1}{2}$ per 1,000 persons living in 1888, or only a fraction higher than the average during the period of five years. During the last-named period the annual death rate was over 17 per 1,000 in all the sub-districts except Prahran, St. Kilda, Brighton, Hawthorn, Kew, Melbourne, Northcote, Essendon and Flemington, and "Remainder of district"; and during 1888 it was above 17 per 1,000 in all of these, except Brighton and Northcote, also Fitzroy, South Melbourne, and Williamstown. It will be borne in mind that the deaths in hospitals, asylums, etc., are excluded from the returns of the individual districts; if such deaths should also be excluded from the total, the deaths in Greater Melbourne would only number 7,016, or a proportion of 16.89 per 1,000 living, a similar proportion for the five years ended with 1885 being 16.55.

Deaths
in Aus-
tralasian
capitals,
1888.

164. In 1888, according to the following figures, the death rate of Melbourne was slightly lower than that of Hobart, but apparently higher than that of any of the other Australasian capital cities. There is strong reason to believe, however, that in some of the colonies either the metropolitan population is over-estimated, or the metropolitan radius, so far as the deaths are concerned, is smaller than that for which the population is calculated. In either of these cases, the death rate would obviously appear to be lower than it really is. It should, moreover, be mentioned that the death rate of Melbourne is swelled by the large number of country residents who are admitted to and die in

* It should be remembered that the deaths in hospitals, asylums, etc., have been eliminated from the various sub-districts. If this had not been done, the death rates of several sub-districts would have been much higher than those shown in the table.

the metropolitan hospitals. In the Wellington returns, and probably in those of some other of the capital cities, it is the custom to eliminate such entries, and it is probable that in Melbourne such deaths bear a higher proportion to the total number of deaths recorded than they do in any other of the capital cities named. Excluding the deaths which occurred in hospitals, asylums, etc., the death rate of Greater Melbourne, already stated to have been in that case only 16·89 per 1,000, is lower than that shown in the table for any of the capitals except Wellington :—

DEATHS IN AUSTRALASIAN CAPITAL CITIES, 1888.

Capital Cities.*	Estimated Mean Population.	Deaths, 1888.	
		Total Number.	Number per 1,000 of the Population.
Hobart	34,419	715	20·77
Melbourne	419,490	8,606	20·51
Perth	9,300	181	19·46
Sydney †	357,690	6,258	17·49
Adelaide †	115,380	1,994	17·28
Brisbane	85,800	1,459	17·00
Wellington	30,590	390	12·75

165. The populations of the various metropolitan cities being merely estimated, they may perhaps be inaccurate, in which case the death rates would appear lower or higher than the truth, according to whether the estimate might be too high or too low. In the year of the last general census of the Australasian colonies (1881) when the populations of these cities could be accurately known, the death rate then shown for Melbourne was much lower, and the death rates for all the other capital cities were much higher than those given in the last table. The following are the figures for the census year:—

Death rates
in Austral-
asian
capitals,
1881.

DEATH RATES IN AUSTRALASIAN CAPITAL CITIES, 1881.

Deaths per 1,000 of the Population.			Deaths per 1,000 of the Population.		
Adelaide ... ..	...	23·55	Sydney ... ..	...	19·12
Hobart ... ..	...	23·18	Brisbane ... ..	...	18·82
Melbourne ... ..	...	19·32	Wellington ... ..	...	14·00

166. According to the following figures, showing the death rates in the principal towns in the United Kingdom, and the figures already

Death rates
in towns of
United
Kingdom.

* With Suburbs.
† There are some doubts as to whether too high an estimate has not been given of the populations of Sydney and Adelaide. If this should be the case, the death rates for those cities, as shown in the table, would, as a matter of course, be lower than the true rates.

given, showing the death rates in Australasian capital cities, the death rate is lower in Wellington than in any British town; in Brisbane, than in any except Brighton; in Sydney and Adelaide, than in any except Brighton and Derby; and in Perth, than in any except those towns and Hull and Nottingham; whilst the death rates in Melbourne and Hobart are below those in all but 13 of the towns named on the list. If, however, deaths in hospitals and asylums should be excluded from the Melbourne returns, the death rate would be lower in that city than in any of the British towns named:—

DEATH RATES IN BRITISH TOWNS, 1887.

Deaths per 1,000 of the Population.			Deaths per 1,000 of the Population.		
Dublin	...	30·6	Halifax	...	21·0
Manchester	...	28·7	Birkenhead	...	21·0
Preston	...	27·9	Twenty-eight large towns	...	20·8
Blackburn	...	25·5	Bristol	...	20·4
Newcastle	...	25·3	Norwich	...	20·4
Oldham	...	23·8	Bradford	...	19·9
Liverpool	...	23·7	Edinburgh	...	19·8
Glasgow	...	23·2	Sunderland	...	19·7
Huddersfield	...	23·0	Birmingham	...	19·7
Plymouth	...	22·7	London	...	19·6
Salford	...	22·2	Portsmouth	...	19·5
Cardiff	...	21·9	Leicester	...	19·5
Wolverhampton	...	21·7	Hull	...	19·2
Sheffield	...	21·6	Nottingham	...	18·7
Bolton	...	21·3	Derby	...	17·1
Leeds	...	21·1	Brighton	...	16·9

Towns
having
highest and
lowest
death rates.

167. It will be noticed that the death rate is higher in Dublin than in any other large town in the United Kingdom. In this respect it contrasts very unfavourably with London, which is one of the towns in which the death rate is lowest. Manchester is one in which the death rate has always been, and still continues to be, highest; but Liverpool, which some years since stood at the very head of the list, has now six towns above it, and stands immediately above Glasgow. In Birmingham the mortality is comparatively low, and approximates closely with that of London.

Death rates
in foreign
towns.

168. The death rates in all the Australasian capitals will be found to be considerably lower than the average death rates of most of the 45 Colonial and Foreign towns named in the sub-joined list:—

DEATH RATES IN 45 COLONIAL AND FOREIGN TOWNS, 1878-80.*

Annual Deaths per 1,000 of the Population.			Annual Deaths per 1,000 of the Population.		
Vera Cruz	...	70.5	Leipsic	...	26.1
Valparaiso	...	64.6	Turin	...	25.6
St. Petersburg	...	51.4	Dresden	...	25.4
Havanna	...	45.7	Stockholm	...	24.7
Madras (1887)	...	40.3	Lyons	...	24.7
Rio Janeiro	...	39.4	Hamburg	...	24.5
Madrid	...	37.4	Bucharest	...	24.5
Montreal	...	37.2	Brussels	...	23.9
Buda-Pesth	...	35.2	Boston	...	23.5
Breslau	...	32.5	Paris (1887)	...	23.4
Rouen	...	31.3	Rotterdam	...	23.3
Calcutta	...	31.1	Quebec	...	22.9
Mexico	...	30.9	Venice	...	22.7
Milan	...	30.6	Copenhagen	...	22.1
Buenos Aires	...	30.1	Amsterdam (1887)	...	22.1
Vienna	...	29.0	Berlin (1887)	...	21.9
Palermo	...	28.5	Geneva	...	21.2
Marseilles	...	28.0	Baltimore	...	21.1
Chicago	...	27.2	Philadelphia	...	20.3
Rome	...	26.8	St. Louis	...	19.3
Bordeaux	...	26.7	Christiania	...	18.8
Bombay (1887)	...	26.3	San Francisco	...	18.1
New York	...	26.2			

169. Of the 4 principal towns in Victoria next in importance to Melbourne, 3 had in 1888 a higher, and 1 had a lower, death rate than that city; but in none of them was the death rate as high as in the majority of Colonial and Foreign towns just referred to. This will be seen by the following figures:—

Death rates
in Victorian
towns.

DEATH RATES IN 5 VICTORIAN TOWNS, 1888.

Deaths per 1,000 of the Population.			Deaths per 1,000 of the Population.		
Sandhurst	...	22.10	Melbourne	...	20.52
Castlemaine	...	21.57	Ballarat	...	17.30
Geelong	...	20.97			

170. The mortality of Victoria is highest in the first five months and in the last month of the year. The relative mortality of the various months fluctuates, however, in different years. According to the average of the quinquennium ended with 1885, the months in which most deaths occur appear to be March, December, and January, and then April, February, and May, in the order named; whereas in the decade ended with 1880 fewer deaths occurred in December than in any of the other months named. In the year under review more

Deaths in
each month.

* Partly taken from Mulhall's *Dictionary of Statistics*, page 126.

deaths occurred in December than in any other month. The number of deaths in each month of 1888, and their percentage to the total number in the year, also the percentage of the deaths in each month of the quinquennium ended with 1885, and of the decennium ended with 1880, to the total number of deaths during the same periods, will be found in the following table:—

DEATHS IN EACH MONTH.

Months.	Year 1888.		Percentage in—	
	Number of Deaths.	Percentage.	Five Years : 1881 to 1885.	Ten Years : 1871 to 1880.
January	1,549	9·51	9·34	10·29
February	1,349	8·28	8·46	9·09
March	1,422	8·73	9·57	10·17
April	1,288	7·91	8·68	9·73
May	1,307	8·02	8·40	8·55
June	1,225	7·52	7·69	7·44
July	1,198	7·36	7·79	7·89
August	1,292	7·93	8·22	7·37
September	1,170	7·18	7·31	6·81
October	1,164	7·15	7·39	7·09
November	1,464	8·99	7·76	7·12
December	1,859	11·42	9·39	8·45
Total	16,287	100·00	100·00	100·00

Deaths at
different
seasons.

171. In Victoria the summer is the most trying portion of the year, especially to invalids and young children. It is not astonishing, therefore, that most deaths usually occur during that period. In 1888, however, for almost the only time on record, most deaths occurred in the spring quarter. Next to the summer, the autumn quarter is usually the most fatal. In the United Kingdom, on the contrary, the greatest mortality occurs in the winter, and the least in the summer quarter. A statement of the relative mortality of the different seasons in Victoria, according to the experience of the past year and two previous periods; in England and Wales, according to the experience of thirty-one years; in Scotland, according to the experience of ten years; and in Ireland, according to the experience of five years; together with the mean temperature in each quarter in Melbourne and Greenwich, will be found in the following table:—

RELATIVE MORTALITY OF EACH QUARTER IN VICTORIA, ENGLAND,
SCOTLAND, AND IRELAND.

Seasons.*	Mean Temperature in Shade.		Deaths per 100 at all Seasons.					
			Victoria.			England and Wales.	Scotland.	Ireland
	Melbourne, Victoria.	Greenwich, England.	Year 1888.	Average of Five Years: 1881 to 1885.	Average of Ten Years: 1871 to 1880.	Average of Thirty-one Years.	Average of Ten Years.	Average of Five Years.
Summer...	65°2	60°5	26·53	27·37	29·55	23·24	22·34	20·21
Autumn...	53·8	44·3	23·45	24·76	25·72	24·65	24·71	23·45
Winter ...	50·2	40·0	22·47	23·32	22·07	27·49	27·95	30·19
Spring ...	60·3	52·8	27·55	24·55	22·66	24·62	25·00	26·15
Year ...	57·6	49·4	100·00	100·00	100·00	100·00	100·00	100·00

172. The Chinese who died in 1888 numbered 198—of whom only 1 (not a half-caste, although born in Victoria) was a female; and the Aborigines who died numbered 12. The former furnish a proportion of 16·1 and the latter of 15·4 to every 1,000 of their numbers.† In the same year the proportion of deaths of all races to every 1,000 of the population was 15·34.

Deaths of
Chinese
and Abori-
gines.

173. The mortality of the Chinese would doubtless have been higher but for the fact that the Chinese population in Victoria consists almost entirely of persons at the adult period of life. In 1888 only 1 (a half-caste) of the Chinese who died was under the age of 5 years, and only 26 others were under 45 years of age; the great majority, or over two-thirds, were between 45 and 65; whilst the two oldest were said to be 84 and 91 respectively. Of the Aborigines who died, two were under 5, whilst a female was stated to have attained the age of 80, and a male the age of 76.

Ages at
death of
Chinese and
Aborigines.

174. The following table shows the number of deaths at various periods of age registered in Victoria during the year 1888, and the proportion of the deaths at each age to the total at all ages:—

Deaths at
each age,
1888.

* The summer, autumn, winter, and spring seasons in Victoria approximate to the quarters ending on the last day of March, June, September and December respectively; and in the United Kingdom to those ending on the last day of September, December, March, and June respectively.

† The estimated number of Chinese in 1888 was 12,270; and on the 3rd April, 1881, the Aborigines numbered 780.

DEATHS AT EACH AGE, 1888.

Ages.	Number of Deaths at each Age, 1888.			Percentage of Deaths at each Age.		
	Males.	Females.	Total.	Males.	Females.	Total.
Under 5 years ...	3,268	2,746	6,014	34·82	39·79	36·93
5 years to 10 years ...	285	250	535	3·04	3·62	3·28
10 " 15 " ...	132	140	272	1·41	2·03	1·67
15 " 20 " ...	209	231	440	2·23	3·35	2·70
20 " 25 " ...	344	325	669	3·67	4·71	4·11
25 " 35 " ...	698	610	1,308	7·44	8·84	8·03
35 " 45 " ...	633	499	1,132	6·74	7·23	6·95
45 " 55 " ...	964	541	1,505	10·27	7·84	9·24
55 " 65 " ...	1,255	630	1,885	13·37	9·12	11·57
65 " 75 " ...	969	508	1,477	10·32	7·36	9·07
75 years and upwards ...	628	422	1,050	6·69	6·11	6·45
Total ...	9,385	6,902	16,287	100·00	100·00	10·000

Proportion
of deaths at
different
ages.

175. It will be noticed that over a third of the males and nearly two-fifths of the females who died had not reached their fifth year; that nearly a fourth of the males and between a fourth and a third of the females were between 5 and 45 years of age; that nearly a fourth of the males, but only about a sixth of the females, were between 45 and 65 years of age; and that about a sixth of the males and more than a seventh of the females were over 65 years of age; it will moreover be found that, on the average, the females who died were about 10 years younger than the males—about half the former being under and half over 21 years of age, whilst about half the latter were under and half over 31 years of age.

Death rate
at each age.

176. The exact ages of the population of Victoria were ascertained at the census of 1881, and since then they have been brought on by means of the records of the births, of the deaths at each age, and of the net immigration, and thus an opportunity is afforded of calculating the death rates of males and females at different ages. Such results for 1888 are given in the following table, and are compared with the average rates which prevailed during the ten years 1871-80, the increase or decrease at each age being also shown:—

DEATH RATE AT EACH AGE, 1871-80 AND 1888.*

Ages.		Number of Deaths per 1,000 of the Population at different Ages.					
		Males.			Females.		
		Mean of 10 Years: 1871 to 1880.	1888.	Increase + Decrease —	Mean of 10 Years: 1871 to 1880.	1888.	Increase + Decrease —
Under 5 years	...	47·34	48·07	+ ·73	42·19	42·38	+ ·19
5 to 10	„	6·10	4·83	— 1·27	6·00	4·40	— 1·60
10 to 15	„	3·30	2·28	— 1·02	3·30	2·50	— ·80
15 to 20	„	4·43	3·47	— ·96	4·29	4·03	— ·26
20 to 25	„	5·38	5·40	+ ·02	5·39	5·75	+ ·36
25 to 35	„	7·60	7·28	— ·32	8·50	7·20	— 1·30
35 to 45	„	12·18	13·26	+ 1·08	11·76	11·64	— ·12
45 to 55	„	18·67	19·27	+ ·60	14·31	13·68	— ·63
55 to 65	„	31·24	29·46	— 1·78	24·20	24·41	+ ·21
65 to 75	„	60·47	60·08	— ·39	48·10	51·71	+ 3·61
All ages	...	16·45	16·61	+ ·16	14·15	13·88	— ·27

177. It has already been stated that in 1888 the death rate of both males and females was above the average. The table shows, however, that this was not the case at all the age-periods; the only ones at which there was an increase being under 5 and from 20 to 25 years in both sexes; also from 35 to 55 years in males; and from 55 to 75 years in females.

Death rate at each age 1888 compared with average of previous years.

178. It has often been pointed out in the *Victorian Year-Book* that the ordinary mode of computing the death rate at all ages, viz., by comparing the total number of deaths of either sex with the number of the same sex living, as shown in the lowest line of the table—although that adopted in every country which publishes Vital Statistics—gives results which are misleading for the purpose of comparing the mortality of one country with that of another, or the mortality of a country at one period with the mortality of the same country at another period, unless the proportions living at different ages are identical in the two countries or at the two periods respecting which it is desired to make comparison, which is seldom if ever the case. To render accurate comparisons possible, it therefore becomes necessary to devise a mode of computing the total death rate whereby the ages of the population might be taken into account.

“Ordinary” death rate seldom reliable.

* For population at each age in 1888, see table following paragraph 62 ante; the deaths at each age are given in table following paragraph 174 ante.

Mode of
computing
"Adjusted
death rate."

179. Several modes have been proposed to effect this object *; of which the mode probably least open to objection is that termed the "Adjusted death rate." This is obtained by applying the rates of mortality actually experienced at the various age-periods during any period to a certain standard population, in which the proportions living at the various ages are in a normal condition, and after finding the total number of deaths which would, according to the actual experience have occurred amongst such a population, calculating therefrom the average rate of mortality (or "Adjusted death rate"). The standard population selected is shown in the following table; also the method of calculating the "Adjusted death rate," the deaths dealt with being those of males under 75 years of age which occurred in Victoria during the ten years ended with 1880:—

MODE OF COMPUTING "ADJUSTED DEATH RATE."

Ages.	Standard Population.	Males under 75, 1871 to 1880.	
		Death Rates experienced. †	Deaths in Standard Population accord- ing to rates in previous column. ‡
<i>Quinquennial Age-periods.</i>			
Under 5 years	1,350	47·34	63·91
5 to 10 „	1,200	6·10	7·32
10 to 15 „	1,075	3·30	3·55
15 to 20 „	1,000	4·43	4·43
20 to 25 „	900	5·38	4·84
<i>Decennial Age-periods.</i>			
25 to 35 years	1,475	7·60	11·21
35 to 45 „	1,125	12·18	13·70
45 to 55 „	825	18·67	15·40
55 to 65 „	600	31·24	18·75
65 to 75 „	325	60·47	19·65
Total	9,875§	...	162·76
Average, or “ Adjusted death rate ”	1,000	...	16·48

"Adjusted"
death rate."

180. It is thus shown that if the mortality of males under 75 years of age, which occurred in Victoria during the ten years 1871 to 1880,

* For an account of three of these methods, see *Victorian Year-Book* 1885-6, paragraphs 594 *et seq.*

† Ascertained by finding the proportion of deaths at each age-period per 1,000 of the actual population at the same age-period.

‡ Ascertained as follows:—Under 5 years, $\frac{1,350 \times 47\cdot34}{1,000} = 63\cdot909$, and so on for the other lines.

§ The difference between this number and 10,000 (*viz.*, 125) represents the number over 75 years of age.

had been experienced by a male population of 9,875—the ages of such population being in the same proportions as those of the standard population shown in the table—the total deaths of such males would have numbered 162·76, or a proportion to the total number (9,875) of 16·48 per 1,000, which may be termed the “Adjusted death rate” of males during the period of 10 years alluded to. This “Adjusted death rate” is available for forming a correct comparison with a proportion similarly obtained relating to the other sex or to any other period or country, no matter what may have been the differences of age between the sexes at the two periods, or in the two countries. It should be mentioned that the age of 75 is the highest taken into the computation, as, in most countries, the deaths and population are generally tabulated in quinquennial or decennial periods up to, but not beyond, that age; and, moreover, the higher ages may safely be left out of account, since, although the death rate at such ages is high, the number living over 75 in a normal population usually amounts to only about 1 per cent.

181. For the decennium 1871 to 1880 and the year 1888, the “Adjusted death rates” of males and females, obtained in the manner just described, are, in the following table, placed side by side with the “Ordinary death rates,” or those obtained by comparing the deaths with every 1,000 of the population of the same sex irrespective of age:—

"ORDINARY" AND "ADJUSTED" DEATH RATES, 1871-1880
AND 1888.

Period.	Ordinary Death Rate.*	Adjusted Death Rate.†
<i>Males.</i>		
1871 to 1880	16·45	16·48
Year 1888	16·61	16·24
Increase	·16	...
Decrease ... ..	...	·24
<i>Females</i>		
1871 to 1880	14·15	14·64
Year 1888	13·89	14·26
Decrease	·26	·38

182. Comparing the death rates in 1888 with those in the decennium 1871-80, it is found that according to the "Ordinary" and less reliable method of computation, there was an apparent increase in the

Results of the two methods compared.

* Per 1,000 of the actual population.

† Per 1,000 of the standard population.

mortality of males, amounting to .16 per 1,000, and an apparent decrease in the mortality of females, amounting to .26 per 1,000; whereas, according to the "Adjusted" or more correct method, there was a decrease of .24 per 1,000 in the case of the males, and a decrease of .38 per 1,000 in the case of females.

Death rates
at various
ages in
Victoria,
England,
and France.

183. In the next table the death rates of males and females at different ages in Victoria, England and Wales, and France are compared—the observations being in all cases for periods of ten years:—

DEATH RATE AT EACH AGE IN VICTORIA, ENGLAND, AND FRANCE.

Ages.				Number of Deaths per 1,000 of the Population.					
				Victoria.		England and Wales.		France.	
				Average of 10 Years : 1871 to 1880.		Average of 10 Years : 1871 to 1880.		Average of 10 Years.	
				Males.	Females.	Males.	Females.	Males.	Females.
All ages ("Ordinary" death rate)				16·45	14·15	22·6	20·0	23·80	23·19
,, ("Adjusted" death rate)				16·48	14·64	20·7	18·0	23·15	21·67
Under 5 years				47·34	42·19	68·1	58·1	84·55	75·45
5 to 10				6·10	6·00	6·7	6·2	10·49	11·04
10 to 15				3·30	3·30	3·7	3·7	5·36	6·41
15 to 20				4·43	4·29	5·2	5·4	10·34	8·41
20 to 25				5·38	5·39	7·3	6·8		
25 to 35				7·60	8·50	9·3	8·6	10·02	9·69
35 to 45				12·18	11·76	13·7	11·6	10·96	11·03
45 to 55				18·67	14·31	20·0	15·6	14·76	14·88
55 to 65				31·24	24·20	34·8	28·5	29·19	27·27
65 to 75				63·47	48·10	69·6	60·8	60·69	63·49
75 to 85				114·80	102·94	150·9	155·8	160·22	153·76

Death rates
"Ordinary"
and "Ad-
justed," in
Victoria,
England,
and France.

184. It will be observed that the average mortality of both males and females at all ages is much lower in Victoria than in England or France, but the difference is not so striking when the new method of comparison is used ("Adjusted" death rate) as it is when the old method is used ("Ordinary" death rate). Thus, according to the old method, deaths of males per 100,000 living are, in England, 615, and in France, 735, more than in Victoria; but according to the new method only 422 more in England, and 667 more in France. And, according to the old method, deaths of females per 100,000 living are, in England, 585, and in France, 904, more than in Victoria; but, according to the new method, only 336 more in England, and 703 more in France.

185. It will further be noticed that at none of the age-periods is the mortality of males, and at only one age-period (35 to 45) is that of females, as high in Victoria as in England; but the Victorian mortality is higher than that of France, in the case of males at from 35 to 65 and in the case of females at from 35 to 45.

Death rate at certain ages higher in Victoria than in France.

186. It is very commonly believed that the conditions of life in Victoria are more fatal to children than those conditions in older countries; but the figures in the table prove the fallacy of this opinion so far as England and France are concerned—the low mortality in Victoria, as compared with that obtaining in either of those countries, being especially marked at the age-periods under 10 years.

Death rate of children less in Victoria than in England or France.

187. According to the table, the death rate of females exceeds that of males at from 20 to 35 in Victoria (during a term of years), at from 15 to 20, and from 75 to 85 in England and Wales, and at from 5 to 15, from 35 to 55, and from 65 to 75 in France; moreover, both in Victoria and in England and Wales, at from 10 to 15, the death rates of males and females are equal. At every other period of life the death rate of males exceeds that of females in the countries named.

Death rate of males and females in three countries compared.

188. Mr. Mulhall gives the ordinary death rate at various ages for different countries,* and these, with the figures for Victoria—which will be found at almost every age much lower than those for any of the other countries—are subjoined:—

Death rate at various ages in different countries.

DEATH RATE AT VARIOUS AGES IN DIFFERENT COUNTRIES.

Countries.		Number of Deaths per 1,000 living at each Age.						
		Under 5.	5 to 10.	10 to 25.	25 to 45.	45 to 55.	55 to 65.	65 to 75.
Victoria	...	38.6	3.5	3.9	10.2	16.2	29.1	59.4
England	...	63.6	6.6	5.5	10.2	17.4	31.8	64.3
United States	...	58.8	10.1	5.4	10.8	17.6	27.2	51.4
France	...	75.6	9.2	8.8	12.7	16.6	28.3	66.3
Prussia	...	...	9.2	6.4	11.5	18.6	33.0	64.5
Austria	...	111.7	9.8	6.6	11.3	21.1	41.5	92.8
Switzerland	...	...	8.5	6.3	11.6	19.3	38.4	82.5
Italy	...	110.6	11.6	7.8	11.7	17.3	33.1	70.1
Spain	...	106.2	11.7	8.8	12.9	23.8	42.0	95.0
Belgium	...	68.1	12.7	8.1	12.9	19.0	32.3	74.5
Sweden	...	57.6	8.0	4.8	8.2	14.7	27.4	62.6

* *Dictionary of Statistics*, page 127.

Infantile
mortality,
1888.

189. The mortality of infants in 1888, in proportion to the number born, was a little above the average. The total number under 1 year of age who died in 1888 was 4,401, and as the births numbered 34,503, it follows that 1 infant died to every 8 births, or 12·76 infants to every 100 births. In the twenty-two years 1866 to 1887, the proportion of infants dying before completing their first year was 12·40 to every 100 births.*

Mortality
of male and
female
infants.

190. It has already been stated that more boys are born than girls, but the balance of the sexes is to a certain extent maintained by more male than female infants dying. This is shown in the following table, which contains a statement, for the eighteen years ended with 1888, of the number of births of boys and girls, the number of deaths of each before completing their first year, and the proportion of the deaths of infants of either sex to the number of births of infants of the same sex:—

MORTALITY OF MALE AND FEMALE INFANTS, 1871 TO 1888.

Year.	Births.		Deaths at under 1 Year of Age.			
			Total Number.		Number per 100 Births.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
1871	14,000	13,382	1,710	1,404	12·21	10·49
1872	13,831	13,530	1,801	1,533	13·02	11·33
1873	14,234	13,866	1,679	1,502	11·80	10·83
1874	13,659	13,141	1,839	1,502	13·46	11·43
1875	13,683	13,037	2,071	1,740	15·14	13·35
1876	13,759	13,010	1,637	1,343	11·90	10·32
1877	13,272	12,738	1,838	1,461	13·85	11·47
1878	13,752	12,829	1,763	1,499	12·82	11·68
1879	13,727	13,112	1,817	1,402	13·24	10·69
1880	13,358	12,790	1,669	1,436	12·49	11·23
1881	13,903	13,242	1,696	1,423	12·20	10·75
Sums and Means	151,178	144,677	19,520	16,245	12·91	11·23
1882	13,612	13,135	2,049	1,673	15·05	12·74
1883	14,109	13,432	1,702	1,448	12·06	10·78
1884	14,844	14,006	1,853	1,428	12·49	10·20
1885	15,455	14,520	2,046	1,725	13·24	11·88
1886	15,753	15,071	2,127	1,797	13·50	11·92
1887	16,876	16,167	2,354	1,942	13·95	12·01
1888	17,617	16,886	2,390	2,011	13·57	11·91

Mortality
of male
greater
than of
female
infants.

191. According to a previous paragraph,† the births of male infants in a series of years were in the proportion of about 104½ to 100 female infants, and the numbers in this table point to a proportion of 120 deaths of the former to 100 of the latter. It will be noticed

* See table following paragraph 197 *post*.

† See paragraph 96 *ante*.

that in every one of the years deaths of male infants very much exceeded those of female infants; and as the numbers living were about equal (the excess, if any, being slightly in favour of male infants), the greater tendency of boys than of girls to die before completing one year of life may be considered to be invariable.

192. In proportion to every 1,000 born, the number of male infants dying varied from 118 in 1873 to 151 in 1875 and 1882, and that of female infants dying from 103 in 1876 to 134 in 1875—the mean number dying per 1,000 births during the eleven years ended with 1881 being 129 of the former and 112 of the latter. The high mortality of infants in 1875 was caused by an epidemic of measles. The next year was one in which the general mortality was much increased by an epidemic of scarlatina, but infants under 1 year appear not to have been at all affected thereby, as their mortality in 1876 was remarkably low. The high infantile mortality in 1882 was exceptional, as in that year no such epidemics were prevalent. It was not sustained in 1883 or 1884, the infantile mortality in those years having been lower than in most of the preceding ones, but concurrently with an increasing birth rate, there has been a gradual rise in the infantile death rate.

Proportion of infants dying to births.

193. In classifying the deaths of infants, those are distinguished which occur at under 1 month of age, at from 1 to 3 months, at from 3 to 6 months, and at from 6 to 12 months. The numbers of these during 1888 and the eleven years ended with 1881 are shown in the following table, together with the proportion of deaths at each of those periods of age and the number at each such period to every 100 births. It will be noticed that in 1888 the mortality of both male and female infants under 1 month of age was below the average, but at every other period under 1 year the mortality of both sexes was above the average :—

Deaths of infants at different ages.

AGE AT DEATH OF MALE AND FEMALE INFANTS.

Ages.	Deaths at under 1 Year of Age.				
	Year 1888.			Average of 11 years, 1871 to 1881.	
	Number.	Percentage at each Age.	Number per 100 Births.	Percentage at each Age.	Number per 100 Births.
Boys.					
Under 1 month ...	726	30·38	4·12	34·23	4·42
1 to 3 months ...	401	16·78	2·28	17·30	2·23
3 to 6 „ ...	556	23·26	3·16	19·43	2·51
6 to 12 „ ...	707	29·58	4·01	29·04	3·75
Total ...	2,390	100·00	13·57	100·00	12·91

AGE AT DEATH OF MALE AND FEMALE INFANTS—continued.

Ages.	Deaths at under 1 Year of Age.				
	Year 1888.			Average of 11 years, 1871 to 1881.	
	Number.	Percentage at each Age.	Number per 100 Births.	Percentage at each Age.	Number per 100 Births.
GIRLS.					
Under 1 month ...	535	26·61	3·17	30·81	3·46
1 to 3 months ...	354	17·60	2·10	17·23	1·94
3 to 6 „ ...	502	24·96	2·97	20·14	2·26
6 to 12 „ ...	620	30·83	3·67	31·82	3·57
Total ...	2,011	100·00	11·91	100·00	11·23

More deaths
of male
than female
infants at
all ages.

194. In 1888 and during the period of eleven years, the mortality of male infants exceeded that of female infants at each of the age-periods. This was more especially the case in the first month of life, when the excess of the former was about a third; in the next two months this excess was reduced to about a tenth, in the next three months to about a fourteenth, and in the next six months to about an eleventh.

Periods at
which
infants die.

195. In the same period of eleven years, over a third of the male and nearly a third of the female infants who died before they were a year old did so in the first month after birth; about a sixth of both males and females in the next two months; about a fifth of both males and females in the next three months; between a third and a fourth of the males and nearly a third of the females in the next six months. The proportions for 1888 are somewhat less for the first month of life, but higher for most of the other age-periods than the proportions just alluded to.

Probable
mortality
of infants.

196. As a practical result of these calculations, it may be mentioned that of every 20,000 newly-born boys and girls in equal numbers, 442 of the former and 346 of the latter may be expected to die before they are a month old; 223 more boys and 194 more girls may be expected to die between 1 month and 3 months of age; 251 more boys and 226 more girls between 3 and 6 months; 375 more boys and 357 more girls between 6 and 12 months. At the end of a year it is probable that 1,291 of the boys and 1,123 of the girls will have died, and 8,709 of the former and 8,877 of the latter will be still living.

Infantile
mortality in
Australasian
colonies.

197. For many years the returns of South Australia showed a very high infantile death rate, much higher than that in any of the other Australasian colonies. It is now, however, almost certain that the apparently high rate referred to had no existence in reality, but was due to the fact that the births were imperfectly registered, and therefore

the infants who died presented an unnaturally large proportion to those recorded as having been born. Latterly more attention has been paid to the registration of births, with the result that in the last two or three years the infantile death rate of South Australia has compared favourably with that in the other colonies. In Victoria, the infantile death rate in 1887 was slightly above, but in all the other colonies it was below, the average, as will be seen by the following table, which gives the number of births, the number of deaths of infants under one year, and the proportion of the latter to the former, in each of the colonies of the group, except Western Australia* (which apparently does not publish any statement of the number of infants who die), for each of the twenty-two years ended with 1887. All the calculations were made in the office of the Government Statist, Melbourne:—

INFANTILE MORTALITY IN AUSTRALASIAN COLONIES.

Year.	Births.	Deaths at under 1 Year of Age.		Births.	Deaths at under 1 Year of Age.		Births.	Deaths at under 1 Year of Age.	
		Total Number.	Number to 100 Births.		Total Number.	Number to 100 Births.		Total Number.	Number to 100 Births.
VICTORIA.				NEW SOUTH WALES.			QUEENSLAND.		
1866	25,010	3,838	15·35	16,950	1,939	11·44	4,127	690	16·72
1867	25,608	3,534	13·80	18,317	2,269	12·39	4,476	578	12·91
1868	27,243	3,054	11·21	18,485	1,791	9·69	4,460	552	12·38
1869	26,040	3,284	12·61	19,243	1,858	9·66	4,654	528	11·35
1870	27,151	3,203	11·80	19,648	1,867	9·50	4,905	526	10·72
1871	27,382	3,114	11·37	20,143	1,812	9·00	5,205	516	9·91
1872	27,361	3,334	12·19	20,250	2,116	10·45	5,265	578	10·98
1873	28,100	3,181	11·32	21,444	1,985	9·26	5,720	701	12·26
1874	26,800	3,341	12·47	22,178	2,428	10·95	6,383	776	12·16
1875	26,720	3,811	14·26	22,528	2,695	11·96	6,706	1,025	15·28
1876	26,769	2,980	11·13	23,298	2,629	11·28	6,903	994	14·40
1877	26,010	3,299	12·68	23,851	2,785	11·68	7,169	1,058	14·76
1878	26,581	3,262	12·27	25,328	3,126	12·34	7,397	1,234	16·68
1879	26,839	3,219	11·99	26,933	2,886	10·72	7,870	917	11·65
1880	26,148	3,105	11·86	28,162	3,200	11·36	8,196	865	10·55
1881	27,145	3,119	11·49	28,903	3,341	11·56	8,220	918	11·17
1882	26,747	3,722	13·91	29,702	3,897	13·12	8,518	1,188	13·95
1883	27,541	3,150	11·44	31,281	3,590	11·48	9,890	1,319	13·34
1884	28,850	3,281	11·37	33,946	4,285	12·62	10,679	1,574	14·74
1885	29,975	3,771	12·57	35,043	4,596	13·12	11,672	1,733	14·85
1886	30,824	3,924	12·73	36,284	4,635	12·85	12,582	1,584	12·59
1887	33,043	4,296	13·00	37,236	3,945	10·59	13,513	1,526	11·29
Sums and means	603,887	74,822	12·40	559,153	63,675	11·39	164,510	21,380	13·00

* Whilst these pages were passing through the press, information was obtained of the infantile death rate of Western Australia during the last three years; the proportion of deaths of infants under 1 year of age per 1,000 births, being for 1886, 15·48; 1887, 15·68; 1888, 12·38, or an average of 14·51 for the three years. These proportions are higher than those relating to most of the other Australasian colonies. It is possible that a considerable number of the births in Western Australia may not be registered, and the death rate of infants would thus appear to be larger than it really is.

INFANTILE MORTALITY IN AUSTRALASIAN COLONIES—*continued.*

Year.	Births.	Deaths at under 1 Year of Age.		Births.	Deaths at under 1 Year of Age.		Births.	Deaths at under 1 Year of Age.	
		Total Number.	Number to 100 Births.		Total Number.	Number to 100 Births.		Total Number.	Number to 100 Births.
	SOUTH AUSTRALIA.			TASMANIA.			NEW ZEALAND.		
1866	6,782	1,178	17·37	2,805	264	9·41	8,466	849	10·03
1867	7,041	1,254	17·81	2,971	267	8·98	8,918	873	9·79
1868	7,247	1,084	14·96	2,990	351	11·73	9,391	899	9·57
1869	6,976	911	13·06	2,859	291	10·18	9,718	957	9·85
1870	7,021	1,031	14·68	3,054	298	9·76	10,277	956	9·30
1871	7,082	961	13·57	3,053	260	8·52	10,592	882	8·33
1872	7,105	1,145	16·12	3,010	306	10·17	10,795	1,074	9·95
1873	7,107	990	13·93	3,048	266	8·73	11,222	1,213	10·81
1874	7,696	1,319	17·13	3,097	321	10·36	12,844	1,394	10·85
1875	7,408	1,343	18·13	3,105	407	13·11	14,438	1,816	12·58
1876	8,224	1,228	14·93	3,149	286	9·08	16,168	1,673	10·35
1877	8,640	1,212	14·03	3,211	365	11·37	16,856	1,527	9·06
1878	9,282	1,466	15·79	3,502	375	10·71	17,770	1,486	8·36
1879	9,902	1,217	12·29	3,564	384	10·77	18,070	1,941	10·74
1880	10,262	1,393	13·57	3,739	420	11·23	19,341	1,805	9·33
1881	10,708	1,364	12·74	3,918	405	10·34	18,732	1,731	9·24
1882	10,844	1,647	15·19	4,043	419	10·36	19,009	1,678	8·83
1883	11,173	1,627	14·56	4,259	528	12·40	19,202	1,995	10·39
1884	11,847	1,590	13·42	4,578	457	9·98	19,846	1,573	7·93
1885	12,046	1,366	11·34	4,637	522	11·26	19,693	1,756	8·92
1886	11,177	1,409	12·62	4,627	485	10·48	19,299	1,899	9·84
1887	10,831	1,204	11·12	4,736	478	10·09	19,135	1,795	9·38
Sums and means }	196,401	27,939	14·23	77,955	8,155	10·46	329,782	31,772	9·70

Order of
colonies in
respect to
infantile
mortality.

198. In the following lists the colonies are placed in order according to their respective rates of infantile mortality, the colony with the highest rate being placed first, and the rest in succession. The reduced rate in South Australia is indicated by the place it occupies in the list for 1887, as compared with that it occupied in the list extending over a series of years :—

ORDER OF COLONIES IN REFERENCE TO INFANTILE MORTALITY.

Order in 1887.

1. Victoria.
2. Queensland.
3. South Australia.
4. New South Wales.
5. Tasmania.
6. New Zealand.

Order over a Series of Years.

1. South Australia.
2. Queensland.
3. Victoria.
4. New South Wales.
5. Tasmania.
6. New Zealand.

Infantile
mortality
in various
countries.

199. Of all the countries respecting which the information is procurable, infantile mortality is highest in Germany, Austria and Italy. In France it is just below the average of the whole of the countries,

and in England it is next below that in France. South Australia stands just below England and Belgium, Queensland and Victoria below these and Denmark and Sweden; New South Wales below these and Scotland; and Tasmania and New Zealand below all these and Norway; Ireland stands below all the other countries :—

INFANTILE MORTALITY IN VARIOUS COUNTRIES.

Deaths under 1 Year of Age to 100 Births.			Deaths under 1 Year of Age to 100 Births.		
Wurtemberg	...	31·25	Denmark	...	13·75
Bavaria	...	30·84	Sweden	...	13·19
Saxony	...	28·22	Queensland	...	13·00
Baden	...	26·17	Victoria	...	12·40
Austria	...	25·63	Scotland	...	12·20
Alsace-Lorraine	...	21·27	New South Wales	...	11·39
Italy	...	20·97	Norway	...	10·49
Prussia	...	20·78	Tasmania	...	10·46
Holland	...	19·32	New Zealand	...	9·70
Switzerland...	...	18·79	Ireland	...	9·50
France	...	16·60			
England	...	14·92	Mean of the countries		
Belgium	...	14·82	named	...	17·50
South Australia	...	14·23			

NOTE.—The information respecting all the countries except the Australasian colonies and Ireland is based upon the average of the 19 years ended with 1883. That respecting the Australasian colonies is based on the average of the 22 years ended with 1887, and that respecting Ireland is for the year 1887. All the figures have been derived from official documents.

200. The infantile mortality of large towns is naturally always above that in country districts. Thus the deaths at under 1 year of age in Melbourne and suburbs (Greater Melbourne) during the sixteen years ended with 1888 averaged 17 per 100 births, whilst in the extra-metropolitan districts of Victoria the mortality of infants at the same period of life averaged less than 10 per 100 births. The following table shows the death rate of infants in the metropolis and in the other districts of the colony during each of the sixteen years named :—

Infantile mortality in Melbourne and country.

INFANTILE MORTALITY IN AND OUTSIDE OF GREATER MELBOURNE, 1873 TO 1888.

Year.	Births.	Deaths at under 1 Year of Age.		Births.	Deaths at under 1 Year of Age.		
		Total Number.	Number to 100 Births.		Total Number.	Number to 100 Births.	
Greater Melbourne.				Victoria, outside Greater Melbourne.			
1873	...	8,007	1,277	15·95	20,093	1,904	9·48
1874	...	7,946	1,480	18·63	18,854	1,861	9·87
1875	...	8,227	1,546	18·79	18,493	2,265	12·25
1876	...	8,202	1,339	16·33	18,567	1,641	8·84
1877	...	8,295	1,407	16·96	17,715	1,892	10·68
1878	...	8,636	1,297	15·02	17,903	1,965	10·98
1879	...	8,829	1,467	16·61	18,010	1,752	9·73

INFANTILE MORTALITY IN AND OUTSIDE OF GREATER MELBOURNE, 1873 TO 1888—continued.

Year.	Births.	Deaths at under 1 Year of Age.		Births.	Deaths at under 1 Year of Age.	
		Total Number.	Number to 100 Births.		Total Number.	Number to 100 Births.
	Greater Melbourne.			Victoria, outside Greater Melbourne.		
1880 ...	8,645	1,439	16·65	17,503	1,666	9·52
1881 ...	9,237	1,514	16·39	17,908	1,605	8·96
1882 ...	9,576	1,857	19·39	17,171	1,865	10·86
1883 ...	10,093	1,603	15·89	17,448	1,547	8·87
1884 ...	10,911	1,832	16·79	17,939	1,449	8·08
1885 ...	12,066	2,041	16·92	17,909	1,730	9·60
1886 ...	12,941	2,309	17·84	17,883	1,615	9·03
1887 ...	14,583	2,553	17·51	18,460	1,743	9·44
1888 ...	15,645	2,688	17·18	18,858	1,713	9·08
Sums and means }	161,839	27,649	17·08	290,714	28,213	9·70

Infantile
mortality
in English
and Austral-
ian towns.

201. In Brisbane and Adelaide the rate of infantile mortality is higher, and in Hobart and Wellington lower than in Melbourne and Sydney—the rate in these two being nearly identical. In the four last-named cities, the rate of infantile mortality compares favourably with that in the majority of the following towns, which are arranged in order according to the extent to which infantile mortality prevails in each :—

INFANTILE MORTALITY IN TOWNS OF ENGLAND AND AUSTRALASIA, 1877 TO 1886.

Deaths under 1 Year of Age to 100 Births.			Deaths under 1 Year of Age to 100 Births.		
Preston ...	...	21·8	Sheffield ...	...	16·3
Leicester ...	...	20·1	Bradford ...	...	16·2
Blackburn ...	...	18·7	Hull ...	...	16·1
Liverpool ...	...	18·3	Twenty-eight English Towns ...	...	16·1
Salford ...	...	17·8	Newcastle ...	...	16·0
Bolton ...	...	17·7	Wolverhampton ...	...	15·9
Nottingham ...	...	17·5	Halifax ...	...	15·9
Manchester ...	...	17·4	Sunderland ...	...	15·7
Brisbane (1883 to 1887)	...	17·4	Plymouth ...	...	15·7
Norwich ...	...	17·3	London ...	...	15·2
Adelaide (1884 to 1887)	...	17·2	Brighton ...	...	14·8
Leeds ...	...	17·2	Bristol ...	...	14·5
Cardiff ...	...	16·9	Hobart (1883 to 1887)	...	14·5
Huddersfield ...	...	16·9	Derby ...	...	14·3
Oldham ...	...	16·9	Wellington (1883 to 1887)	...	14·2
Melbourne (1878 to 1888)	...	16·9	Portsmouth ...	...	13·8
Sydney (1878 to 1888)...	...	16·8	Birkenhead ...	...	13·7
Birmingham ...	...	16·4			

Deaths of
infants in
Women's
Hospital.

202. In, or in connexion with the Women's* Hospital, Melbourne, 634 children were born alive during the year ended with 30th June,

* Formerly known as the Lying-in Hospital.

1888, and of these, 20, or about 3 per cent., died whilst under the care of the institution. In the previous year, 4 per cent.; in 1885-6, $4\frac{2}{3}$ per cent.; in 1884-5 and 1883-4, 9 per cent.; in the year 1882-3, 7 per cent.; in 1881-2 (18 months), $11\frac{1}{2}$ per cent.; in the year 1880, $5\frac{1}{2}$ per cent.; in 1879, 8 per cent.; in 1878, $6\frac{1}{2}$ per cent.; in 1877, 7 per cent.; and in 1876 and 1875, 9 per cent., of the infants born in the Women's Hospital, or outside under the supervision of its medical officers and committee, died before the mother had been discharged. It is satisfactory to find that the proportions in the last and two previous years were the lowest recorded in the institution; at the same time it may be pointed out that, in consequence of the bad class of cases which come to maternity hospitals for treatment, the infants who die in such institutions, in proportion to the numbers born, are, all over the world, in excess of a similar proportion outside.

203. In the year 1888, deaths of male children under 5 years of age numbered 3,268, and deaths of female children under that age numbered 2,746—the former being in the proportion of nearly 35 per cent. and the latter of about 40 per cent. to the total number of deaths at all ages. These proportions are considerably below the average of the eleven years 1871-81, and are still lower than those which prevailed in the earlier years of that period. This is accounted for by the fact that the proportion of children to the total population has been diminishing from year to year, and is now very much lower than it was in the early years referred to. The following table shows the number of such deaths at each year of age and their proportion to the deaths at all ages in 1888 and in each of the previous seventeen years:—

DEATHS OF CHILDREN UNDER 5 YEARS OF AGE, 1871 TO 1888.

Years.	Years of Age at Death (last birthday).					Total Deaths under 5 Years.	
	0.	1.	2.	3.	4.	Number.	Proportion per 100 Deaths at All ages.
MALES.							
1871 ...	1,710	463	135	79	77	2,464	42·15
1872 ...	1,801	486	155	120	102	2,664	42·23
1873 ...	1,679	456	186	146	97	2,564	39·06
1874 ...	1,839	504	184	159	128	2,814	40·43
1875 ...	2,071	917	383	234	217	3,822	44·78
1876 ...	1,637	511	312	261	210	2,931	38·04
1877 ...	1,838	512	216	123	108	2,797	38·08
1878 ...	1,763	465	176	140	87	2,631	36·65
1879 ...	1,817	353	159	117	94	2,540	36·12
1880 ...	1,669	414	156	103	74	2,416	36·55
1881 ...	1,696	357	141	102	72	2,368	33·71
Means ...	1,775	494	200	144	115	2,728	39·40

Deaths of
children
under 5.

DEATHS OF CHILDREN UNDER 5 YEARS OF AGE,
1871 TO 1888—*continued*.

Years.	Years of Age at Death (last birthday).					Total Deaths under 5 Years.	
	0.	1.	2.	3.	4.	Number.	Proportion per 100 Deaths at All ages.
MALES.							
1882 ...	2,049	400	134	87	92	2,762	34·96
1883 ...	1,702	358	123	114	95	2,392	32·28
1884 ...	1,853	457	162	114	82	2,668	34·76
1885 ...	2,046	402	162	106	78	2,794	33·66
1886 ...	2,127	467	130	75	69	2,868	33·44
1887 ...	2,354	539	149	91	72	3,205	34·79
1888 ...	2,390	475	164	139	100	3,268	34·82
FEMALES.							
1871 ...	1,404	413	136	94	68	2,115	51·93
1872 ...	1,533	473	155	106	94	2,361	52·20
1873 ...	1,502	427	160	132	119	2,340	47·41
1874 ...	1,502	472	171	135	99	2,379	45·58
1875 ...	1,740	864	408	256	169	3,437	51·22
1876 ...	1,343	469	275	217	177	2,481	42·46
1877 ...	1,461	484	171	148	102	2,366	43·57
1878 ...	1,499	481	204	108	95	2,387	43·22
1879 ...	1,402	353	156	100	89	2,100	41·28
1880 ...	1,436	386	143	89	51	2,105	41·75
1881 ...	1,423	331	124	95	65	2,038	38·61
Means ...	1,477	468	191	135	103	2,374	45·93
1882 ...	1,673	358	121	94	86	2,332	40·67
1883 ...	1,443	310	125	86	68	2,037	36·40
1884 ...	1,428	423	182	128	87	2,248	38·56
1885 ...	1,725	370	125	92	75	2,387	39·36
1886 ...	1,797	460	155	76	62	2,550	40·00
1887 ...	1,942	435	146	102	76	2,701	39·77
1888 ...	2,011	400	156	94	85	2,746	39·79

More boys
die than
girls.

204. During the eleven years ended with 1881, deaths of male children under 5 numbered 30,011, and deaths of female children under 5 numbered 26,109, and thus the former exceeded the latter by 3,902, or by 15 per cent. The deaths of male children in all the years bore a smaller proportion to the total deaths of males than the deaths of female children did to the total deaths of females, a circumstance mainly due to the small proportion of adults in the female as compared with that in the male population. In the seven years ended with 1888, the mortality of boys under 5 amounted to 34 per cent., and that of girls under 5 amounted to 39 per cent., of the whole mortality of their respective sexes. In none of the years to which the table relates did the former exceed 45 per cent., or the latter exceed 53 per cent., of that

mortality. The epidemic period, the centre of which was 1875, is easily recognised by the increased mortality which occurred thereat

205. The average number of male and female children at each year of age under 5 living, during the period of eleven years ended with 1881, are compared in the next table with the average number of deaths of children of the same sexes at those ages which occurred annually during that period:—

NUMBER AND DEATHS OF CHILDREN UNDER 5 YEARS OF AGE,
1871 TO 1881.

Age last Birthday.	Males.				Females.			
	Mean Number of Children living at each age, 1871 & 1881.	Mean Annual Number of Deaths at each age, 1871 to 1881.	Per-centage of Deaths at each age.	Number of Deaths per 1,000 Children living.	Mean Number of Children living at each age, 1871 & 1881.	Mean Annual Number of Deaths at each age, 1871 to 1881.	Per-centage of Deaths at each age.	Number of Deaths per 1,000 Children living.
0 ...	12,152	1,775	65·07	146·07*	11,809	1,477	62·22	125·07*
1 ...	11,228	494	18·11	43·99	11,004	468	19·71	42·53
2 ...	11,943	200	7·33	16·75	11,635	191	8·04	16·42
3 ...	11,807	144	5·28	12·20	11,469	135	5·69	11·77
4 ...	11,261	115	4·21	10·21	11,138	103	4·34	9·25
Total...	58,391	2,728	100·00	46·72	57,055	2,374	100·00	41·61

206. During the period to which the table refers, the mean number of children of both sexes under 5 living was 115,446, and the mean number of deaths of such children was 5,102, whence it results that 44 in every 1,000 children under 5, or about 1 in 23, died annually. In every 1,000 boys the proportion who died annually was 47, or 1 in 21; in every 1,000 girls it was 42, or 1 in 24.

207. Of every 1,000 boys under 1 year of age, 146, and of every 1,000 girls under 1 year of age, 125, died annually. These are larger proportions than those quoted in the table showing the comparison of deaths of children under 1 with the births, the proportions in which were 129 deaths of male infants and 112 deaths of female infants to every 1,000 births of infants of those sexes respectively.†

208. In proportion to their respective numbers in the population, more boys than girls died at every year of age, the difference per 1,000 living being as much as 21 at under 1,‡ but only about 1½ at from 1 to 2, and less than 1 at subsequent ages.

* These results, being based upon infants living at any one time instead of annual births, are naturally in excess of those in total lines of last column of table following paragraph 193 ante.

† See table following paragraph 193 ante.

‡ See also paragraph 194 ante.

Boys and girls dying under 1.

209. According to the figures, deaths of boys under 1 year of age furnish a larger proportion to the total deaths of boys under 5 than deaths of girls under 1 do to the total deaths of girls under 5, but the reverse is the case at each of the years of age after the first.

Proportion of deaths of children at each age.

210. Of the whole number of children who died before they attained the age of 5, nearly two-thirds, viz., 65 per cent. of the boys and 62 per cent. of the girls, were under 1 year of age; less than a fifth of the boys and about a fifth of the girls were between 1 and 2; about a fourteenth of the boys and about a twelfth of the girls were between 2 and 3; 1 in 19 of the boys and 1 in 18 of the girls were between 3 and 4; 1 in 24 of the boys and 1 in 23 of the girls were between 4 and 5.

Probable mortality of children under 5.

211. It results from actuarial calculations, based upon the figures in this and a previous table,* that of every 20,000 boys and girls in equal numbers born in Victoria, 1,291 boys and 1,123 girls may be expected to die before they complete a year of life, 374 more boys and 369 more girls before they complete 2 years, 138 more boys and 139 more girls before they complete 3 years, 99 more boys and 98 more girls before they complete 4 years, and 83 more boys and 76 more girls before they complete 5 years. At the end of that period it is probable that 1,985 of the boys and 1,805 of the girls will have died; and 8,015 of the boys and 8,195 of the girls will be still living.

Deaths of octogenarians.

212. The persons who died at the age of 80 or upwards numbered 582 in 1888, as against 531 in 1887 and 517 in 1886. Those in 1888 consisted of 344 males and 238 females. Thirty-seven of the males and 35 of the females had passed the age of 90, and 5 of the males and 3 of the females had passed the age of 100. The following are the exact registered ages of such persons in the last eighteen years:—

DEATHS OF OCTOGENARIANS, 1871 TO 1888.

Years of Age.	Year 1888.		Six Years, 1882-87.		Eleven Years, 1871-81.	
	Males.	Females.	Males.	Females.	Males.	Females.
80	52	30	282	180	253	144
81	27	24	142	106	135	98
82	45	27	217	112	119	97
83	40	16	151	97	101	75
84	38	25	181	132	115	79
85	30	13	140	113	91	70
86	19	25	104	75	63	61
87	20	16	79	69	65	46

* See paragraph 196, also table following paragraph 193 ante, from which probable deaths at under 1 year of age have been deduced. Probability of death at other ages under 5 has been calculated from the numbers in the last table.

DEATHS OF OCTOGENARIANS, 1871 TO 1888—*continued.*

Years of Age.	Year 1888.		Six Years, 1882-87.		Eleven Years, 1871-81.	
	Males.	Females.	Males.	Females.	Males.	Females.
88	24	19	48	53	48	38
89	12	8	30	40	35	26
90	8	9	39	36	26	37
91	8	4	24	17	10	16
92 ... ..	...	4	21	16	18	18
93	2	3	14	22	9	8
94	1	4	14	10	14	8
95	3	3	10	9	16	9
96	2	...	6	3	11	4
97	4	2	3	4	3	4
98	1	...	4	6	5	2
99	3	3	3	4	8	...
100	2	1	7	3	2	5
101	1	...	1	3	1	2
102	1	...	3	2	3	...
103 ... ..	...	1	3	1	1	2
104 ... ..	...	1	2	...	2	1
105 ... ..	...	...	...	1	2	...
106 ... ..	...	...	3	1	...	1
107 ... ..	...	...	...	1	...	...
109	1	...	...	...	...	...
110 ... ..	...	...	...	...	...	1
111 ... ..	...	...	1	...	...	...
114 ... ..	...	...	...	...	...	1
Unspecified ...	...	...	...	...	135*	98*
Total	344	238	1,532	1,116	1,291	951

213. In the 7 years ended with 1888, 1,876 males and 1,354 females died in Victoria at the age of 80 or upwards. The deaths of males and females at all ages during the same period numbered 58,458 and 43,295 respectively, therefore 1 male in every 31, and 1 female in every 32, lived to be upwards of 80 years of age. In the same period, 195 of the males, or 1 in 300, and 174 of the females, or 1 in 249, lived to be 90 years of age or upwards; and 25 of the males, or 1 in 2,338, and 15 of the females, or 1 in 2,886, lived to be upwards of 100 years of age. Owing to the rapidly increasing proportion of old people in the population, these proportions are much higher than those prevailing in the preceding period of 9 years ended with 1881, when only 1 male in every 56 males and 1 female in every 58 females who died was upwards of 80 years of age; only one male in 496, and 1 female in 413, was upwards of 90 years; and only 1 male in 5,912, and only 1 female in 3,776, was upwards of 100 years.

Deaths of
octogena-
rians, 1881
to 1888.

* These figures are those relating to the years 1871 and 1872, in which the exact ages of octogenarians were not noted.

Average age
at death.

214. The average age at death in 1888 was 30·52 years, or about 30 years and 6 months. For males the average was 32·68 years, or about 32 years and 8 months, and for females, 27·59 years, or about 27 years and 7 months; the females being thus on the average 5 years and 1 month younger than the males. Until 1882, the average age at which both males and females died in Victoria had a tendency to advance from year to year, but since then the average has remained tolerably steady, as will be seen by the following figures:—

AVERAGE AGE AT DEATH IN VICTORIA.

				Males.		Females.
				Years.		Years.
23 years—1852 to 1875	...	...	...	21·70	...	15·01
Year 1875	...	...	...	24·28	...	18·23
" 1876	...	...	...	26·81	...	21·84
" 1877	...	...	...	28·60	...	23·06
" 1878	...	...	...	29·54	...	23·24
" 1879	...	...	...	30·65	...	24·71
" 1880	...	...	...	30·72	...	25·35
" 1881	...	...	...	32·63	...	25·98
" 1882	...	...	...	32·04	...	26·58
" 1883	...	...	...	33·13	...	27·55
" 1884	...	...	...	32·24	...	27·50
" 1885	...	...	...	33·48	...	27·52
" 1886	...	...	...	33·32	...	27·40
" 1887	...	...	...	32·80	...	27·35
" 1888	...	...	...	32·68	...	27·59

Expectation
of life in
Victoria and
England.

215. It should be explained that the average age of death, as given above, would not give a correct idea of the average duration of life, even if the ages of the population were in a normal condition. In an increasing population the former must be always considerably below the latter, in consequence of the undue proportion of children, which tends to lower the average age. A knowledge of the average duration of life can only be accurately obtained from a life table based upon actuarial calculations of a complex character. In England and Wales, according to the most recent life table, the average duration of life—technically called “expectation of life,” or “mean lifetime”—is 41·35 years for males, and 44·62 years for females. In Victoria, according to a life table constructed some time since by Mr. A. F. BurrIDGE, F.I.A. of London, based on the mortality experienced in the 10 years, 1871–80, the average duration of life is 46·37 for males, but a table for females was not given. It would thus appear that a male Victorian may expect, on the average, to enjoy 5 years more of life than an Englishman.

New classi-
fication
adopted in
Victoria.

216. The system of classifying the causes of death in Victoria was changed in 1886 in accordance with a system which had been adopted in England a few years previously. This new mode of classification was based upon one devised by a committee composed of members of

the Royal College of Physicians, London, and was published by them, first in 1869, and afterwards, in a revised form, in 1885. The system of classification, now adopted, has superseded that of the late Dr. Farr, which, until the new system was introduced, had been the mode used for classifying the causes of death, both in England and Wales and in the Australasian colonies. A full account of the difference between the two systems was given in the *Victorian Year-Book*, 1886-7.*

217. A Nosological Index was compiled by the present writer more than a quarter of a century since, under the sanction of the then Registrar-General, Mr. W. H. Archer, F.I.A., to be used in connexion with Dr. Farr's classification, in order to facilitate the bringing of all the circumstances resulting in death under classified heads, also for the guidance of deputy registrars in receiving, and of medical men in supplying, information respecting the causes of death, and of officers of charitable and other public institutions in preparing statistical tables of the deaths and sickness occurring therein. The adoption of a new system of classification has made it necessary that the Nosological Index should be completely altered, to suit the change. This has been done according to the best knowledge possessed by the Department of the Government Statist, Melbourne, the place to be assigned to each disease or cause of death having been carefully considered by experienced officers and compared with the revised nomenclature proposed by the Royal College of Physicians. At the same time the opportunity has been taken greatly to increase the number of entries in the Index.†

New Nosological Index.

218. From the date of its publication until the adoption of the new classification in 1886 the former Index had been in general use in the registration departments of all the Australasian colonies, some of which received such a supply of copies as they required from the Victorian Government, and others reprinted the work. Most of the colonies are now adopting the new system, and its use will probably soon become general throughout the group. To all the colonies adopting this system the revised Index will be found as indispensable as the former one proved itself to be during the last twenty-five years in connexion with the system which has now been abandoned.

Victorian Index in use throughout Australasia.

219. The following table shows the causes of death in classified arrangement; the total number and the number of Chinese and Aborigines who died from each cause during 1888, also the total number who died from each cause during the five years ended with 1885 and during the ten years ended with 1880:—

Causes of death classified.

* Paragraph 635 *et seq.*

† A copy of the new Nosological Index was published in the *Victorian Year-Book*, 1886-7, page 853 *et seq.*

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT.
(10 Years: 1871 to 1880; 5 Years: 1881 to 1885; and Year 1888.)

Class.	Sub-Class.	Causes of Death.*	Number of Deaths.				
			Ten Years: 1871-1880.	Five Years 1881-1885.	Year 1888.		
					Total †	Chinese	Abori- gines.
		All causes	122,570	66,811	16,287	198	12
		CLASSES.					
I.	...	SPECIFIC FEBRILE OR ZYMOTIC DISEASES:— Zymotici (ζύμη, leaven). Diseases of the whole body, dependent on morbid poisons.	28,430	10,447	2,153	5	...
II.	...	PARASITIC DISEASES:— Parasitici (παράσιτος, parasite). Diseases dependent on animal or vegetable parasites.	734	391	71	1	...
III.	...	DIETIC DISEASES:— Dietici (δίαιτα, way of life; diet). Diseases produced by errors of diet.	1,979	1,124	194	3	...
IV.	...	CONSTITUTIONAL DISEASES:— Cachectici (καχεξία, bad habit of body). This class, according to the nomenclature of the Royal College of Physicians, is designated "Diseases of the whole body—not classed." The term used by Dr. Farr in the old classification, however, is retained; Dr. Farr's definition being as follows:—"Sporadic diseases; affecting several organs in which new morbid products are often deposited; sometimes hereditary."	17,205	10,617	2,593	47	4
V.	...	DEVELOPMENTAL DISEASES:— Metamorphici (μεταμόρφωσις, change of form). Special diseases, the incidental result of the formative and nutritive processes.	6,042	4,431	1,255	8	2
VI.	...	LOCAL DISEASES:— Monorganici (μόνος, alone, without others; ὄργανον, organ). Sporadic Diseases, in which the functions of particular organs or systems are disturbed or obliterated, with or without inflammation.	51,209	30,575	7,549	98	4
VII.	...	VIOLENT DISEASES OR DEATHS:— Thanatici (θάνατοι, violent deaths). Diseases which are the evident and direct results of physical or chemical forces, acting either by the will of the sufferer, of other persons, or accidentally.	8,607	4,243	1,119	18	1
VIII.	...	ILL-DEFINED AND NOT SPECIFIED CAUSES:— This group includes several diseases which were formerly classed under specific heads, such as dropsy, debility, tumor, abscess, etc.	8,364	4,983	1,353	18	1

* The definitions given in this column are chiefly those of the late Dr. Farr.

† The Chinese and Aborigines are included in this column.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*
(10 Years : 1871 to 1880; 5 Years : 1881 to 1885; and Year 1888.)

Class.	Sub-Class.	Causes of Death.	Number of Deaths.				
			Ten Years 1871-1880.	Five Years : 1881-1885.	Year 1888.		
					Total.*	Chinese.	Abori- gines.
SUB-CLASSES.							
I.	1	Miasmatic diseases ...	15,459	4,588	942	2	...
	2	Diarrhoeal diseases ...	11,036	4,886	1,025	1	...
	3	Malarial diseases ...	213	39	5	...	...
	4	Zoogenous diseases ...	1	...	1	...	...
	5	Venereal diseases ...	377	218	35	1	...
	6	Septic diseases ...	1,344	716	145	1	...
II.	...	Parasitic diseases ...	734	391	71	1	...
III.	...	Dietic diseases ...	1,979	1,124	194	3	...
IV.	...	Constitutional diseases ..	17,205	10,617	2,593	47	4
V.	...	Developmental diseases ...	6,042	4,431	1,255	8	2
VI.	1	Diseases of the nervous system ...	13,532	7,414	1,656	14	1
	2	Diseases of the organs of special sense	?	?	14	...	...
	3	Diseases of the circulatory system...	6,804	4,453	1,246	17	1
	4	Diseases of the respiratory system...	15,534	9,966	2,131	40	...
	5	Diseases of the digestive system ...	11,240	6,135	1,796	16	2
	6	Diseases of the lymphatic system and ductless glands	44	23	18	...	...
	7	Diseases of the urinary system ...	1,875	1,511	421	10	...
	8	Diseases of the organs of generation	295	120	52	1	...
	9	Diseases of parturition ...	1,267	624	113	...	...
	10	Diseases of the organs of locomotion	290	137	42	...	...
	11	Diseases of the integumentary system	323	192	60	...	...
VII.	1	Accident or negligence ...	7,447	3,662	937	10	1
	2	Homicide ...	190	110	42	2	...
	3	Suicide ...	951	463	139	6	...
	4	Execution ...	19	8	1	...	...
VIII.	...	Ill-defined causes, or unspecified ...	8,364	4,933	1,353	18	1
DISEASES, ETC.							
I.	1	Small-pox ...	2	6	...	...	...
		Chicken-pox ...	13	6	1	...	...
		Measles ...	2,080	386	30	...	...
		Epidemic rose rash ...	...	...	1	...	...
		Scarlet fever ...	4,101	282	21	...	...
		Influenza ...	276	162	23	...	...
		Whooping-cough ...	1,974	701	21	...	...
		Diphtheria † ...	3,040	681	301	...	...
		Cerebro-spinal fever ...	...	...	2	...	...
		Simple continued fever ...	3,973	2,364	2	...	...
		Typhoid (or enteric) fever ...			539	2	...
		Others ...	...	...	1	...	...
	2	Cholera (simple) ...	523	263	99	...	...
		Diarrhoea ...	7,667	3,994	817	1	...
		Dysentery ...	2,846	629	109	...	...
	3	Remittent fever ...	169	25	3	...	...

* The Chinese and Aborigines are included in this column.

† See also Croup (VI., 4).

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*
(10 Years: 1871 to 1880; 5 Years: 1881 to 1885; and Year 1888.)

Class.	Sub-Class.	Causes of Death.	Number of Deaths.				
			Ten Years: 1871-1880	Five Years: 1881-1885.	Year 1888.		
					Total.*	Chinese.	Aborigines.
		DISEASES, ETC.— <i>continued.</i>					
I.	3	Ague	44	14	2	...	...
	4	Glanders	1	...	...	...	...
		Cow-pox and other effects of vaccination	?	?	1	...	...
	5	Syphilis	286	178	25	1	...
		Gonorrhœa, stricture of the urethra	91	40	10	...	...
	6	Phagadæna ... ..	?	?	...	...	...
		Erysipelas	619	260	32	...	...
		Pyæmia, septicæmia	†264	†142	39	1	...
		Puerperal fever ‡	461	314	74	...	...
II.	...	Thrush	327	119	17	...	...
		Others from vegetable parasites	?	?	1	...	...
		Hydatids	379	268	53	1	...
		Others from animal parasites	28	4	...	...	...
III.	...	Starvation, want of breast-milk	1,322	726	63	3	...
		Scurvy	§	§	1	...	...
		Intemperance	646	394	130	...	...
		Other dietic diseases	11	4	...	...	...
IV.	...	Rheumatic fever, rheumatism of heart	817	379	45	...	...
		Rheumatism	133	80	22	1	...
		Gout	?	3	...	...	...
		Rickets	?	3	...	...	...
		Cancer, malignant disease	||2,957	||2,065	521	8	...
		Tabes mesenterica	723	484	148	...	...
		Tubercular meningitis (acute hydrocephalus)	1,394	719	185	1	...
		Phthisis	10,155	6,428	1,528	37	4
		Other forms of tuberculosis, scrofula, etc.	780	301	39	...	...
		Purpura, hæmorrhagic diathesis	¶100	¶44	8	...	...
		Anæmia, chlorosis, leucocythæmia...	**	**	23	...	...
		Diabetes mellitus ††	146	114	23	...	...
		Other constitutional diseases	?	?	1	...	...
V.	...	Premature birth	2,715	1,689	462	...	...
		Atelectasis	††	††	41	...	...
		Cyanosis	203	115	37	...	...
		Spina bifida	108	51	17	...	...
		Imperforate anus			4	...	...
		Cleft palate, harelip	289	122	8	...	...
		Other congenital defects			25	...	...
		Old age	2,727	2,454	661	8	2

* The Chinese and Aborigines are included in this column.

† A few cases of mumps and other miasmatic diseases probably included under this head.

‡ See also accidents of childbirth (Class VI., Sub-class 9, post).

§ Included with purpura (IV.).

|| Including lupus.

¶ Including scurvy.

** Distributed over other heads, viz., anæmia with dropsy (VIII.), chlorosis with disorders of menstruation (VI., 8), and leucocythæmia with other diseases of the circulatory system (VI., 3).

†† Includes diabetes insipidus, and diabetes undefined.

‡‡ Included with debility (VIII.).

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*
(10 Years : 1871 to 1880; 5 Years : 1881 to 1885; and Year 1888.)

Class.	Sub-Class.	Causes of Death.	Number of Deaths.				
			Ten Years : 1871-1880.	Five Years : 1881-1885.	Year 1888.		
					Total.*	Chinese.	Abori- gines.
DISEASES, ETC.— <i>continued.</i>							
VI	1	Inflammation of brain or its membranes	2,383	1,249	166	...	...
		Apoplexy ...	2,750	1,674	366	6	...
		Softening of brain ...	†	†	78	...	...
		Hemiplegia, brain paralysis	1,596	968	35	...	...
		Paralysis, undefined ...			154	...	...
		Insanity (general paralysis of insane)			131	3	...
		Chorea ...	20	9	3	...	...
		Epilepsy ...	588	365	101	1	...
		Convulsions ...	3,390	1,454	373	...	...
		Laryngismus stridulus ...	?	?	7	...	...
		Idiopathic tetanus	2,805	1,695	18	...	...
		Paraplegia, diseases of spinal cord			50	2	1
		Other diseases of nervous system			174	2	...
	2	Otitis, otorrhœa ...	†	†	11	...	...
		Epistaxis and diseases of nose			2	...	...
		Ophthalmia and diseases of eye			1	...	...
	3	Endocarditis, valvular disease	377	229	215	4	...
		Pericarditis ...			31	...	...
		Hypertrophy of heart ...			21	...	...
		Angina pectoris ...	‡	‡	9	...	...
		Syncope ...			102	1	...
		Aneurism ...			68	1	...
		Senile gangrene ...	§	§	11	...	...
		Embolism, thrombosis ...	5,642	3,902	29	...	...
		Phlebitis ...			3	...	...
		Varicose veins ...			2	...	...
		Other diseases of the circulatory system			755	11	1
	4	Laryngitis ...	359	253	54	...	...
		Croup || ...	1,897	795	282	...	...
		Other diseases of larynx and trachea	?	?	7	2	...
		Asthma, emphysema ...	392	261	74	6	...
		Bronchitis ...	4,588	3,039	682	6	...
		Pneumonia ...	5,077	3,769	689	12	...
		Congestion of the lungs ...	1,812	1,049	168	7	...
		Pleurisy ...	811	540	118	2	...
		Others ...	598	260	57	5	...
	5	Stomatitis ...	¶ 3	¶ 2	9	...	...
		Dentition ...	1,469	464	122	...	1
		Sore throat, quinsy ...	153	42	9	...	...

* The Chinese and Aborigines are included in this column.

† Included with other diseases of nervous system.

‡ Included with other diseases of the circulatory system.

§ Included with mortification (VIII.)

|| Including diphtheritic croup.

¶ The great majority of cases of stomatitis for these periods are included with diseases of stomach.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*
(10 Years: 1871 to 1880; 5 Years: 1881 to 1885; and Year 1888.)

Class.	Sub-Class.	Causes of Death.	Number of Deaths.				
			Ten Years: 1871-1880.	Five Years: 1881-1885.	Year 1888.		
					Total.*	Chinese.	Abori- gines.
DISEASES, ETC.— <i>continued.</i>							
VI.	5	Dyspepsia	1,971	1,294	25	...	...
		Hæmatemesis			20	...	...
		Melæna			3	...	...
		Diseases of stomach			588	1	1
	6	Enteritis	2,134	1,137	302	3	...
		Ulceration of intestine	160	121	23	...	...
		Ileus, obstruction of intestine	421	244	75	...	...
		Stricture or strangulation of intestine	44	35	8	...	...
		Intussusception of intestine	93	60	13	...	...
		Hernia	191	139	27	...	...
		Fistula	17	8	4	...	...
		Peritonitis	771	442	115	5	...
		Ascites	184	58	11	2	...
		Gallstones	3,623	2,084	7	...	...
		Cirrhosis of liver			139	2	...
		Other diseases of liver			287	3	...
		Other diseases of the digestive system			9	...	...
	7	Diseases of lymphatic system	?	?	9	...	...
		Disease of spleen	44	19	1	...	...
		Bronchocele	?	4	2	...	...
		Addison's disease	†	†	6	...	...
	8	Nephritis	218	182	44	1	...
		Bright's disease	749	777	200	5	...
		Uræmia	†	†	40	1	...
		Suppression of urine	29	32	9	...	...
		Calculus	48	50	13	1	...
		Hæmaturia	†	†	2	...	...
		Diseases of bladder and prostate	203	140	73	1	...
		Other diseases of the urinary system	628	330	40	1	...
	9	Ovarian disease	44	33	24	...	...
		Diseases of the uterus and vagina	170	58	15	...	...
		Disorders of menstruation	52	27	5	...	...
		Pelvic abscess	†	†	1	...	...
		Perineal abscess	†	†	3	1	...
		Diseases of the testes, penis, scro- tum, etc.	29	2	4	...	...
	10	Abortion, miscarriage	1,267	624	8	...	...
		Puerperal mania			8	...	...
		Puerperal convulsions			13	...	...
		Placenta prævia, flooding			16	...	...
		Phlegmasia dolens			2	...	...
		Other accidents of childbirth			66	...	...
	10	Caries, necrosis	§	§	21	...	...
		Arthritis, ostitis, periostitis	87	58	17	...	...
		Other diseases of the organs of locomotion	203	79	4	...	...

* The Chinese and Aborigines are included in this column.

† Included with other diseases of urinary system.

‡ Included with abscess (VIII.).

§ Included with "Other diseases," in same sub-class.

CAUSES OF DEATH IN CLASSIFIED ARRANGEMENT—*continued.*

(10 Years : 1871 to 1880 ; 5 Years : 1881 to 1885 ; and Year 1888.)

Class.	Sub-Class.	Causes of Death.	Number of Deaths.				
			Ten Years : 1871-1880.	Five Years : 1881-1885.	Year 1888.		
					Total.*	Chinese.	Aborigines.
DISEASES, ETC.—<i>continued.</i>							
VI.	11	Carbuncle	37	27	3	...	...
		Phlegmon, cellulitis	20	4	21	...	...
		Lupus	†	†	3	...	...
		Ulcer, bed sore	86	59	13	...	...
		Eczema	?	?	15	...	...
		Other diseases of the integumentary system	185	102	5	...	...
VII.	1	Fractures, contusions	3,152	1,632	403	6	1
		Wounds	262	124	35	...	...
		Burn, scald	885	434	120	...	...
		Sunstroke	218	70	26	1	...
		Lightning	25	12	4	1	...
		Poison	178	93	14	1	...
		Bite of snake or insect	37	18	3	...	...
		Drowning	1,937	933	207	1	...
		Suffocation	625	283	76	...	...
		Otherwise	128	63	49	...	...
	2	Murder and manslaughter	190	110	42	2	...
	3	Gunshot wounds	254	{ 69	25	1	...
		Cut, stab			27	...	...
		Poison	188	71	27	1	...
		Drowning	217	95	25	...	...
		Hanging	256	138	29	4	...
		Suicide by other means	36	16	6	...	...
	4	Judicial hanging	19	8	1	...	...
VIII.	...	Dropsy	† 613	† 322	17	...	...
		Debility, atrophy, inanition	§ 6,987	§ 4,279	1,189	10	1
		Mortification	131	55	13	...	...
		Tumour	269	204	24	...	...
		Abscess	38	3	21	1	...
		Hæmorrhage ... ..	...	...	10	...	...
		Sudden (cause unascertained) ... ..	...	...	9	...	...
		<i>Causes not specified</i>	326	120	70	7	...

220. The next table shows the same causes of death, arranged in the order of their fatality, during 1888, with the numbers who died from each cause in that year, during the five years ended with 1885, and during the ten years ended with 1880, also the order of fatality of the different causes during that period :—

* The Chinese and Aborigines are included in this column.

† Included with cancer (IV.).

‡ Including anæmia (IV.).

§ Including atelectasis (V.).

Causes of death in order of fatality.

CAUSES OF DEATH IN ORDER OF FATALITY.
(10 Years: 1871-80; 5 Years: 1881-85; and Year 1888.)

Order of Fatality.			Causes of Death.	Number of Deaths.*		
Ten Years: 1871-80.	Five Years: 1881-85.	Year 1888.		Ten Years: 1871-80.	Five Years: 1881-85.	Year 1888.
1	1	1	Phthisis	10,155	6,428	1,528
3	5	2	Accidents	7,447	3,662	937
4	3	3	Heart disease, etc., exclusive of aneurism (41) and pericarditis, endocarditis and valvular disease (19)	642	3,902	932
2	2	4	Diarrhoea	7,667	3,994	817
5	4	5	Pneumonia	5,077	3,769	689
6	6	6	Bronchitis	4,588	3,039	682
16	7	7	Old age	2,727	2,454	661
22	15	8	Dyspepsia, and other diseases of the stomach	1,971	1,294	636
8	8	9	Typhoid (or enteric) and simple continued fever	3,973	2,364	543
12	10	10	Cancer, malignant disease ...	2,957	2,065	521
17	12	11	Premature birth	2,715	1,689	462
9	9	12	Liver diseases not classed ...	3,623	2,084	433
10	14	13	Convulsions	3,390	1,454	373
15	13	14	Apoplexy	2,750	1,674	366
26	19	15	Hemiplegia, paralysis, insanity ...	1,596	968	320
19	17	16	Enteritis	2,134	1,137	302
11	26	17	Diphtheria	3,040	681	301
23	21	18	Croup	1,897	795	282
48	48	19	Endocarditis, pericarditis, valvular disease	377	229	246
14	11	20	Diseases of spinal cord and other diseases of nervous system	2,805	1,695	224
36	22	21	Bright's disease	749	777	200
25	20	22	Childbirth and puerperal fever ...	1,728	938	187
28	24	23	Tubercular meningitis (acute hydrocephalus)	1,394	719	185
24	18	24	Congestion of the lungs	1,812	1,049	168
18	16	25	Inflammation of brain or its membranes	2,383	1,249	166
37	29	26	Tabes mesenterica	723	484	148
30	31	27	Suicide	951	463	139
41	40	28	Malformation	600	288	132
38	33	29	Intemperance	646	394	130
27	30	30	Dentition	1,469	464	122
32	28	31	Pleurisy	811	540	118
35	32	32	Peritonitis	771	442	115
13	27	33	Dysentery	2,846	629	109
43	36	34	Epilepsy	588	365	101
44	43	35	Cholera (simple)	523	263	99
31	35	36	Rheumatic fever and rheumatism ...	817	379	95
...	...	37	Softening of the brain	†	†	78
45	47	38	Ileus, obstruction of intestine ...	424	244	75
46	44	39	Asthma, emphysema	392	261	74
55	53	40	Diseases of bladder and prostate ...	203	140	73

* See notes to previous table.

† Included with diseases of spinal cord and other diseases of nervous system, *ante*.

CAUSES OF DEATH IN ORDER OF FATALITY—*continued.*

(10 Years: 1871-80; 5 Years: 1881-85; and Year 1888.)

Order of Fatality.			Causes of Death.	Number of Deaths.*		
Ten Years: 1871-80.	Five Years: 1881-85.	Year 1888.		Ten Years: 1871-80.	Five Years: 1881-85.	Year 1888.
33	38	41	Aneurism	785	322	68
29	23	42	Starvation, want of breast milk ...	1,322	726	63
42	45	43	Diseases of the respiratory system not classed	598	260	57
49	46	44	Laryngitis	359	253	54
47	42	45	Hydatids	379	268	53
54	49	46	Nephritis	218	182	44
57	58	47	Murder and manslaughter ...	190	110	42
...	...	48 {	Uræmia	?	?	40
39	37	48 {	Diseases of the urinary system not classed	628	330	40
34	39	49 {	Other forms of tuberculosis, scrofula, etc.	780	301	39
53	52	50 {	Pyæmia, septicæmia	264	142	39
40	45	50	Erysipelas	619	260	32
20	34	51	Measles	2,080	386	30
56	54	52	Hernia	191	139	27
51	50	53	Syphilis	286	178	25
73	70	54	Ovarian disease	44	33	24
64	57	55 {	Diabetes mellitus	146	114	23
62	55	55 {	Ulceration of intestines	160	121	23
...	...	55 {	Anæmia, chlorosis, leucocythæmia ...	?	?	23
52	51	56 {	Influenza	276	162	23
65	60	56	Gout	133	80	22
21	25	57 {	Whooping cough	1,974	701	21
7	41	57 {	Scarlet fever	4,101	282	21
77	79	57 {	Phlegmon, cellulitis	20	4	21
...	...	58	Caries, necrosis	?	?	21
...	...	58	Idiopathic tetanus ... ..	...	...	18
50	56	59 {	Thrush	327	119	17
69	64	59 {	Arthritis, osteitis, periostitis ...	87	58	17
...	...	60 {	Eczema	?	?	15
60	64	60 {	Diseases of the uterus and vagina ...	170	58	15
...	...	61	Diseases of the eye and ear	?	?	14
67	62	62 {	Intussusception of intestine	93	60	13
70	63	62 {	Ulcer, bed sore	86	59	13
72	65	63 {	Calculus	48	50	13
59	58	63	Ascites	184	58	11
68	68	64	Gonorrhœa, stricture of the urethra ...	91	40	10
83	81	65 {	Stomatitis	3	2	9
75	71	65 {	Suppression of urine	29	32	9
63	67	65 {	Sore throat, quinsy	153	42	9
83	78	65 {	Diseases of the digestive system not classed	3	5	9
...	...	66 {	Diseases of the lymphatic system ...	?	?	9
66	66	66 {	Purpura, hæmorrhagic diathesis ...	100	44	8
73	69	66 {	Stricture or strangulation of intestines	44	35	8

* See notes to previous table.

CAUSES OF DEATH IN ORDER OF FATALITY—*continued.*
(10 Years: 1871-80; 5 Years: 1881-85; and Year 1888.)

Order of Fatality.			Causes of Death.	Number of Deaths.*		
Ten Years: 1871-80.	Five Years: 1881-85.	Year 1888.		Ten Years: 1871-80.	Five Years: 1881-85.	Year 1888.
...	...	67	Laryngismus stridulus ...	...	...	7
...	...	67	Diseases of the larynx and trachea not classed	?	?	7
...	...	68	Addison's disease ...	?	...	6
71	71	69	Disorders of menstruation...	52	27	5
58	59	69	Diseases of the integumentary system not classed	185	102	5
55	61	70	Diseases of the organs of locomotion not classed	203	79	4
79	76	70	Fistula ...	17	8	4
75	81	70	Diseases of testes, penis, scrotum, etc.	29	2	4
77	75	70	Chorea ...	20	9	3
...	...	71	Perineal abscess ...	...	...	3
61	72	71	Remittent fever ...	169	25	3
...	...	71	Lupus ...	?	?	3
74	71	71	Carbuncle ...	37	27	3
73	74	72	Ague ...	44	14	2
...	79	72	Bronchocele ...	?	4	2
...	...	72	Hæmaturia ...	?	?	2
78	76	72	Judicial hanging ...	19	8	1
...	...	72	Cow-pox and other effects of vaccination	?	?	1
...	...	73	Cerebro-spinal fever ...	...	...	1
76	79	73	Other parasitic diseases ...	28	4	1
...	...	73	Constitutional diseases not classed ...	?	?	1
80	77	73	Chicken-pox ...	13	6	1
...	...	73	Pelvic abscess ...	...	...	1
...	...	73	Scurvy ...	?	?	1
73	73	73	Diseases of spleen ...	44	19	1
...	...	73	Epidemic rose-rash ...	?	?	1
...	80	...	Rickets ...	...	3	...
85	...	...	Glanders ...	1	...	...
81	79	...	Dietic diseases not classed...	11	4	...
84	77	...	Small-pox ...	2	6	...
Deaths from well-defined causes ...				114,206	61,828	14,934
Deaths from "atrophy and debility" and other ill-defined and unspecified causes				8,364	4,983	1,353
Deaths from all causes ...				122,570	66,811	16,287

Death rate from various causes in Victoria and England.

221. The fatality of the different circumstances which cause death in this colony, as compared with the fatality resulting from similar causes in England and Wales, is shown by the following table, in

* See notes to previous table.

which the number of persons dying from each cause in either country is compared with the number of persons living in the same country. The total of each class and order is given, as also are some of the principal diseases. The Victorian results relate to the year 1888, the five years ended with 1885, and the ten years ended with 1880, and the results for England and Wales to the five years ended with 1880 :—

ANNUAL DEATH RATE FROM EACH GROUP OF CAUSES AND CERTAIN DISEASES IN VICTORIA AND ENGLAND AND WALES.

Class.	Sub-Class.	Causes of Death.	Number of Annual Deaths per 100,000 of Mean Population.			
			Victoria.			England and Wales.
			Year 1888.	Average of 5 Years : 1881-1885.	Average of 10 Years : 1871 to 1880.	Average of 5 Years : 1876 to 1880.
		All causes	1,533·54	1,464·31	1,538·01	2,081·74
		CLASSES.				
I.	...	Specific febrile or zymotic diseases	202·72	228·97	356·74	332·00
II.	...	Parasitic diseases	6·69	8·57	9·21	5·74
III.	...	Dietic diseases	18·27	24·64	24·83	6·72
IV.	...	Constitutional diseases	244·15	232·70	215·89	358·26
V.	...	Developmental diseases	117·98	97·11	75·82	163·14
VI.	...	Local diseases	710·79	670·12	642·57	1,004·80
VII.	...	Violent deaths	105·36	92·99	108·00	72·00
VIII.	...	Ill-defined and not specified causes	127·58	109·21	104·95	139·08
		SUB-CLASSES AND DISEASES.				
I.	1	Miasmatic diseases	88·70	100·56	193·98	219·26
		Measles	2·82	8·47	26·10	38·54
		Scarlet fever	1·98	6·18	51·46	68·04
		Diphtheria*	28·34	14·93	38·15	12·18
		Whooping-cough	1·98	15·36	24·77	52·76
		Typhoid or enteric fever, etc.	50·94	51·81	49·85	34·66
	2	Diarrhoeal diseases	96·51	107·09	138·48	85·40
		Diarrhoea	76·93	87·54	96·21	} 83·36
		Dysentery	10·26	13·79	35·71	
	3	Malarial diseases	·47	·85	2·67	·74
	4	Zoogenous diseases	·09	...	·01	·36
	5	Venereal diseases	3·30	4·78	4·73	9·56
	6	Septic diseases	13·65	15·69	16·87	16·68
		Puerperal fever (see also Childbirth and Puerperal <i>infra</i>)	6·97	6·88	5·78	6·20

* Deaths from diphtheritic croup are not included with those from diphtheria, but under the head of croup, which is classed as a disease of the respiratory system, Class VI., Sub-Class 4.

ANNUAL DEATH RATE FROM EACH GROUP OF CAUSES AND CERTAIN
DISEASES IN VICTORIA AND ENGLAND AND WALES—*continued.*

Class.	Sub-Class.	Causes of Death.	Number of Annual Deaths per 100,000 of Mean Population.			
			Victoria.			England and Wales.
			Year 1888.	Average of 5 Years : 1881-1885.	Average of 10 Years : 1871 to 1880.	Average of 5 Years : 1876 to 1880.
		SUB-CLASSES AND DISEASES.				
IV.	...	Constitutional diseases—				
		Cancer, malignant disease	49·06	45·26	37·10	49·60
		Phthisis	143·87	140·88	127·42	204·24
		Other tubercular and scrofulous diseases	35·03	32·96	36·35	77·87
V.	...	Developmental diseases—				
		Of children (premature birth or malformation)	55·93	43·33	41·60	55·80
		Of old age	62·05	53·78	34·22	107·34
VI.	...	Diseases of the systems—				
	1	Nervous (brain diseases, etc.)	155·93	162·50	169·80	277·80
	2	Organs of special sense (nose, ear, and eye diseases)	1·32	?	?	1·34
	3	Circulatory (heart diseases, etc.)	117·32	97·59	85·37	141·70
	4	Respiratory (lung diseases, etc.)*	200·65	218·43	194·92	395·50
	5	Digestive (stomach, bowel, liver diseases, etc.)	169·11	134·46	141·04	117·60
	6	Lymphatic, and ductless glands	1·69	·50	·55	1·26
	7	Urinary (kidney, bladder diseases, etc.)	39·64	33·12	23·53	37·50
	8	Generative (diseases of ovary, uterus, and vagina, etc.)	4·90	2·63	3·70	5·88
	9	Childbirth (see also Childbirth and puerperal fever <i>infra</i>)	10·73	13·68	15·90	7·96
	10	Locomotive (arthritis, ostitis, etc.)	3·95	3·00	3·64	10·78
	11	Integumentary (carbuncle, phlegmon, ulcer, etc.)	5·65	4·21	4·12	7·48
VII.	1	Accident or negligence ...	88·23	80·26	93·45	63·12
	2	Homicide	3·95	2·41	2·38	1·40
	3	Suicide	13·09	10·15	11·93	7·38
	4	Execution	·09	·17	·24	·10
I. VI.	6 } 9 }	Childbirth and puerperal fever	17·70	20·55	21·68	14·16

NOTE.—See notes to table following paragraph 219 *ante*.

* Deaths from diphtheritic croup are not included with those from diphtheria, but under the head of croup, which is classed as a disease of the respiratory system, Class VI., Sub-Class 4.

222. By means of the results shown in this table, it is found that, over a series of years, the mortality from the following causes is greater in Victoria than in England and Wales :—Diphtheria,* typhoid fever, diarrhoeal diseases, dietic diseases (including want of breast-milk and alcoholism), parasitic diseases (including thrush, hydatids, etc.); diseases of the stomach, bowels, and liver; violent deaths of all kinds; and the consequences of childbirth. From every other cause shown, also from all causes combined, the death rate is, on the average, higher in England and Wales than in Victoria.

Diseases
more fatal
in Victoria
than in
England.

223. It should be pointed out that under the altered nosological classification, which has now been in force for two years, the increased number of distinct diseases specified, and the numerous changes made in the grouping of diseases, have rendered it impossible to ascertain the number of deaths resulting from many diseases now stated separately, but formerly grouped with other complaints in such a way as to be no longer distinguishable; consequently many of the classes, sub-classes, and diseases contain sometimes an excess above, and sometimes a deficiency below, the correct number, and, as a matter of course, the results cannot in such cases be strictly compared with those for the last two years. Such discrepancies have, as far as possible, been pointed out in the footnotes to a previous table, and it is believed it will be possible in most cases to institute a fair comparison.

New nos-
ology pre-
vents
returns
from being
strictly
comparable

224. Per 100,000 of the population, 203 deaths in 1888 were set down to specific febrile or zymotic diseases. The number was 26 below the average of recent years, and more than 40 per cent. below the average of the decade 1871-80, during which period, in consequence of the prevalence of epidemics, the rate of mortality from this class of complaints was somewhat higher than in England. Of the 203 deaths referred to, 89 were set down to miasmatic diseases, 97 to diarrhoeal diseases, 14 to septic diseases, 3 to venereal diseases, and a much smaller proportion to malarial diseases. Of miasmatic diseases, one which is almost invariably more fatal here than in England is typhoid fever, which caused 51 deaths per 100,000 of the population, or 11 less than in 1887, and 1 less than the average of the five years ended with 1885. Next to typhoid fever in point of fatality in 1888 was diphtheria,† which caused 28 per 100,000 persons living, or 9 more than in 1887. This complaint is generally more fatal here than in England. The proportion of deaths from diarrhoeal diseases was not as high in 1888

Specific
febrile or
zymotic
diseases.

* There is some difficulty in making comparisons in the case of diphtheria, as diphtheritic croup, which is generally classed with croup, may sometimes be classed with diphtheria. See footnote to last table.

† See footnote (*) on preceding page.

as in 1887, or in the quinquennial period ended with 1880. These complaints, which press most hardly upon children under the age of five years, are invariably much more fatal here than in England. The mortality from venereal and from septic diseases was below the average. The proportion of deaths from complaints under both these sub-classes is generally lower here than in England. As regards other zymotic diseases, the mortality from malarial diseases, such as ague and remittent fever, was considerably below the average of both the five-year and the ten-year periods. There was only one death placed under the head of zoogenous diseases, viz., that of a man from glanders.

Zymotic diseases, etc., in Australasian colonies.

225. The following is a statement of the number of deaths from zymotic diseases under the old classification, which now corresponds as nearly as possible with the zymotic, parasitic, and dietic classes of disease together, and of the proportion of such deaths to the total mortality and to the population over a series of years in all the Australasian colonies. The colonies are placed in order according to the death rate from diseases of this class prevailing in each:—

ORDER OF COLONIES IN REFERENCE TO MORTALITY FROM
ZYMOTIC, PARASITIC, AND DIETIC DISEASES, 1878-87.

Colony.	Deaths from Zymotic, Parasitic, and Dietic Diseases, 1878-87.		
	Total Number.	Percentage of Total Deaths.	Annual Proportion per 10,000 Persons Living.
Queensland	13,190	28·11	49·5
Western Australia ...	1,099	20·34	34·2
South Australia ...	8,425	20·53	29·3
New South Wales ...	22,909	18·13	27·7
Victoria	23,776	17·71	26·2
Tasmania	2,793	14·59	22·7
New Zealand	11,544	20·25	22·3

Results compared in different colonies.

226. It will be observed that in Victoria, during the 10 years 1878 to 1887, the mortality from zymotic, parasitic, and dietic diseases was less in proportion to the population as well as to the mortality from all causes than it was in any of the other Australasian colonies except Tasmania and New Zealand. Queensland was much above the other colonies in these respects, and was the only one of the colonies in which the death-rate from this class of complaints is higher than that in England. In New South Wales, on the other hand, the proportion was only slightly higher than in Victoria.

227. Small-pox has never prevailed as an epidemic amongst the people of Victoria. On several occasions persons sickening from or affected by that complaint have arrived in vessels, and before the nature of the malady was discovered it has been caught by others; but in every case the patients have been promptly isolated by order of the Government, and the disease has soon disappeared. No case of small-pox occurred in the year under review, and since the registration system was first introduced in 1853 only 26 deaths from it have been recorded, five of which occurred in 1884, that being the period of the last outbreak. It may not be, however, uninteresting to give some statistics of deaths from small-pox in other countries, material for which is at hand in the valuable paper contributed by Dr. E. Raseri to the International Statistical Institute at its session held at Rome in the month of April, 1886.* The following are the figures referred to, which relate generally to the mean of the four years 1881 to 1884:—

ANNUAL DEATH RATE FROM SMALL-POX IN VARIOUS COUNTRIES.

Deaths from Small-pox Annually per 10,000 persons living.		Deaths from Small-pox Annually per 10,000 persons living.	
Spain (principal towns) ...	13·07	Holland ...	·57
Spain ...	8·46	Sweden ...	·41
Austria (principal towns) ...	8·43	Switzerland ...	·33
Austria ...	7·05	Prussia ...	·29
Belgium ...	4·09	Germany (principal towns) ...	·23
Belgium (principal towns) ...	3·15	Ireland ...	·20
Russia ...	2·96	Massachusetts ...	·18
Italy ...	1·63	Denmark (towns) ...	·08
Switzerland (principal towns) ...	·80	Scotland (eight towns) ...	·05
Sweden (principal towns) ...	·69	Scotland ...	·03
England and Wales ...	·67		

228. The decline in the numbers of the Australian aborigines was attributed by the late Mr. Curr chiefly to small-pox, which he stated had carried off probably one-third to one-half of the race. Mr. Curr gave it as his opinion that it had no existence with them until after the arrival of the whites, but broke out amongst the tribes surrounding Port Jackson about 15 months after Phillip established a settlement there. From inquiries made, Mr. Curr found reason to believe that the disease spread from Sydney over a great portion of the continent, reaching the shores of Port Phillip Bay on the south, Keppel Bay on the north-east, Rawlinson Range in the western interior, finding its way to Perth in Western Australia, and along the west coast from Perth to Port Essington. He has ascertained that the traditions of several tribes point to the conclusion that in the country through which it spread it killed something like one-half of

* *Bulletin de l'Institut International de Statistique*, Tome I., 3ème et 4ème livraisons, page 193.

231. It appears by the figures that the proportion of infants vaccinated is larger in Ireland than in any other country, and next so in Scotland; and that whilst in Victoria more than three-fourths of the children born are vaccinated, in South Australia and New Zealand little more than two-thirds, in Tasmania little more than half, and in New South Wales only one-fourth, of the infants are vaccinated.

Vaccinations
in Austral-
asia and
elsewhere.

232. The advocates of vaccination do not contend that it gives absolute protection from an attack of small-pox, or even such complete protection as is afforded by a previous attack of small-pox, but it is contended that an effectively vaccinated person taking small-pox usually has it in a mild and modified form. As evidence of this, the following figures are given by Dr. Gayton as a digest of 10,403 cases of small-pox treated by him in the London small-pox hospitals *:—

Effects of
vaccination

EFFECTS OF VACCINATION ON SMALL-POX CASES.

	Cases of Small-pox.	Deaths.	
		Number.	Per cent.
Vaccinated, good marks ...	2,085	62	3
„ imperfect marks ...	4,854	455	9
Stated to be vaccinated but no marks visible	1,295	352	27
Unvaccinated ...	2,169	938	43
Total ...	10,403	1,807	17

233. The number of public vaccinators in Victoria is 184, and the amount paid in 1887-8 for vaccinations, including fees to Deputy-Registrars and travelling allowances to vaccinators, was £5,496.

Cost of
vaccination

234. The seven zymotic diseases which chiefly affect children are measles, scarlatina, diphtheria, croup, whooping-cough, dysentery, and diarrhoea. The following table shows the number of deaths from such diseases which occurred during the twenty-five years ended with 1888, the annual means of the decade 1864-1873 and of the decade 1874-1883 being also given:—

Zymotic
diseases
affecting
children.

* Figures with almost similar results, by Dr. Marson, of one of the London small-pox hospitals, were published in the *Victorian Year-Book*, 1887-8, volume I., paragraph 656.

DEATHS FROM ZYMOTIC DISEASES CHIEFLY AFFECTING CHILDREN, 1864 TO 1888.

Year.	Number of Deaths from—							
	Measles.	Scarlet Fever.	Diphtheria.	Croup.	Whooping cough.	Dysentery.	Diarrhoea.	Total.
1864	7	278	451	160	25	243	528	1,692
1865	11	215	391	171	304	402	864	2,358
1866	427	462	331	132	365	525	1,027	3,269
1867	630	621	334	115	205	430	986	3,321
1868	24	460	451	194	243	220	640	2,232
1869	24	224	493	162	100	306	858	2,167
1870	3	24	418	99	50	244	706	1,544
1871	4	27	255	90	318	316	626	1,636
1872	7	135	320	121	227	424	747	1,981
1873	1	188	420	142	299	357	629	2,036
Annual mean } 1864-1873	113·8	263·4	386·4	138·6	213·6	346·7	761·1	2,223·6
1874	256	120	375	159	151	325	846	2,232
1875	1,541	985	239	135	58	509	1,002	4,469
1876	5	2,240	201	173	13	202	675	3,509
1877	6	183	359	315	245	254	963	2,325
1878	5	136	336	331	291	197	877	2,173
1879	3	61	337	275	193	140	698	1,707
1880	252	26	198	156	179	122	604	1,537
1881	62	86	114	125	167	115	671	1,340
1882	15	89	122	142	109	182	968	1,627
1883	7	59	131	167	48	139	885	1,436
Annual mean } 1874-1883	215·2	398·5	241·2	197·8	145·4	218·5	818·9	2,235·5
1884	233	34	162	181	209	78	643	1,540
1885	69	14	152	180	168	115	827	1,525
1886	20	14	121	160	209	115	906	1,545
1887	78	4	199	191	129	138	933	1,672
1888	30	21	301	282	21	109	817	1,581

NOTE.—Croup is included in this table, although not now classed as a zymotic disease, since a large number of deaths are set down to diphtheria and croup conjointly.

Children's
zymotic
diseases,
1888.

235. The year 1888 has been marked by an increase in the mortality from scarlet fever, diphtheria and croup, but a diminished mortality from measles, whooping cough, dysentery and diarrhoea. Taken as a whole, these diseases caused fewer deaths than in 1887, but more than in any other year since 1882. Some increase was naturally to be expected, as the number of children must have increased largely since that period.

Measles.

236. An epidemic of measles occurred in 1884, and caused in that and the following year 302 deaths, or 12 less than resulted from the preceding epidemic of the same complaint in 1880 and 1881. Neither

of these outbreaks of measles was so serious in its effects as the two previous ones of 1874-5 and 1866-7, when the resulting deaths numbered 1,797 and 1,057 respectively. As compared with 1887, the table shows a diminished number of deaths from measles in 1888, and that a recurrence of that complaint in an epidemic form, which was feared in the previous year, did not take place. Per 10,000 of the population, the proportion of deaths from measles was .28 in 1888 and .86 in the ten years ended with 1887, the latter proportion being lower than that in any of the following European countries, but very slightly higher than that in the other Australasian colonies, except South Australia, as is shown by the following figures:—

ANNUAL DEATH RATE FROM MEASLES IN VARIOUS COUNTRIES,
1881 TO 1884.*

	Deaths from Measles per 10,000 persons living.		Deaths from Measles per 10,000 persons living.
Spain (principal towns)	11.44	Switzerland (principal towns)	2.46
Spain	8.84	Sweden	2.40
Italy	7.04	Austria (principal towns)	2.32
Scotland (eight towns)	5.34	Ireland	1.81
Belgium	5.24	Massachusetts	1.16
Austria	4.60	Russia in Europe	1.09
England and Wales	4.01	South Australia (1878 to 1887)	1.00
Denmark (towns)	3.66	Switzerland ... ..	.88
Scotland	3.58	Victoria (1878 to 1887)	.86
Prussia	3.51	New Zealand ... ..	.64
Sweden (principal towns)	3.27	New South Wales ... ..	.63
Germany (principal towns)	3.15	Tasmania ... ..	.54
Holland	2.88	Queensland ... ..	.27
Belgium (principal towns)	2.80		

NOTE.—A useful circular issued under the direction of the Central Board of Health describing the symptoms of measles, and the precautions necessary to be taken to prevent its spread and mode of treatment in the absence of medical aid, was published in the *Victorian Year-Book*, 1887-8, Vol. I., paragraph 661.

237. On the occasion of both the earlier visitations of measles just referred to, the epidemic was accompanied or followed by one of scarlet fever (scarlatina), which proved to be even more fatal than the former complaint; but no such calamity has attended the last two outbreaks of measles, during the whole period of which, especially the last outbreak, the mortality from scarlet fever was exceedingly low. The fatality attending this complaint has very much diminished of late years, the deaths from it—notwithstanding the increased population—having numbered only 408 in the last ten years, or an average of 41 per annum; as against 3,987, or an average of 570 per annum, in

* These proportions, except those for the Australasian colonies, have been taken and re-arranged from Dr. Raseri's paper already alluded to, page 193.

the preceding seven years; and 2,260, or an average of 377 per annum, in the six years ended with 1869. In 1888, scarlet fever caused 21 deaths, or .2 per 10,000 of the population, as against .62 in the five years ended with 1885, and 5.1 in the ten years ended with 1880. Whilst the death rate from this complaint in the last ten years was lower than the average prevailing in any of the following countries, that in the decade preceding those years was higher than in most of the countries named :—

ANNUAL DEATH RATE FROM SCARLET FEVER IN VARIOUS COUNTRIES,
1881 to 1884.*

	Deaths from Scarlet Fever per 10,000 persons living.		Deaths from Scarlet Fever per 10,000 persons living.
Sweden (principal towns) ...	6.10	Spain ...	2.00
Austria ...	5.86	Russia in Europe ...	1.79
Prussia ...	5.30	Belgium (principal towns) ..	1.58
England and Wales ...	5.29	Switzerland (principal towns)	1.49
Germany (principal towns) ...	5.09	Spain (principal towns) ...	1.46
Sweden ...	4.85	South Australia (1878 to 1887)	1.27
Scotland (8 towns) ...	4.77	Holland ...	1.15
Austria (principal towns) ...	4.45	Switzerland ...	1.01
Scotland ...	4.44	New South Wales (1878 to 1887)	.89
Ireland ...	3.00	New Zealand	.75
Italy ...	2.94	Victoria ...	.59
Belgium ...	2.90	Tasmania ...	.49
Denmark (towns) ...	2.64	Queensland	.13
Massachusetts ...	2.54		

Central
Board of
Health on
scarlet
fever.

238. The following circular on scarlet fever has been recently issued by the Central Board of Health :—

SCARLET FEVER.

Symptoms and Direction for Treatment in the Absence of Medical Aid.

Ordinary Symptoms.—More or less feverishness with vomiting and headache, also soreness of the throat; which, on examination inside, will be found of a deep red colour. As the disease advances there is much swelling about the tonsils. The rash generally commences about the face, neck, and chest, but sometimes on other parts of the body. It is usually of a scarlet colour, but occasionally purplish or dusky, and the skin very hot.

Infection.—Scarlet fever is highly infectious. A healthy person may carry the germs; and clothes or papers which have been in a sick room will convey infection to a distance, and may communicate the disease months afterwards when unpacked. The infection begins at the commencement of the sickness, and lasts for several weeks or even months. It is greatest at the height of the disease. The period of incubation (that is, the interval between infection and the first sign of illness)

* Except those for the Australasian colonies, the figures have been taken and re-arranged from Dr. Raseri's paper, page 193.

is from about three to five days, and the rash usually appears on the second day of sickness. When scarlet fever gains entrance to a healthy house it need not spread. Prompt isolation, or removal of the susceptible is generally successful, and as the rash is an early symptom, it soon attracts attention.

Treatment.—When there is nausea, or the tongue much coated, some authorities recommend an emetic. The best is a teaspoonful of ipecacuanha wine in tepid water every ten minutes until free vomiting comes on. When the wine is not at hand, half a teaspoonful of powdered alum mixed with wet sugar, and repeated every ten minutes, if required, will answer. Give plenty of tepid water as drinks to aid the emetic. Keep the room well ventilated; doors and fireplaces open; and, if necessary, the window may be kept partially open in warm weather. At the same time the utmost care ought to be taken to prevent draughts coming directly on the patient, as nothing is so dangerous as a chill. The greatest risk of getting cold is when the skin begins to peel off. The window should then be closed, but the room still kept fresh by good ventilation. In all cases—even the mildest—the patient should be kept in bed, or in a comfortably warm room, two or three weeks, and when allowed to go out the clothing should be warm. To prevent dropsy, which frequently occurs in connection with scarlet fever, the patient should avoid exposure to cold or damp for some weeks after recovery.

Diet.—Should be light and spare at first, plenty of liquids, little at a time, and frequently. Plain water, milk, or barley-water drinks may be taken cold, or even iced. When more nourishment can be taken, chicken broth, beef tea, or mutton broth is suitable. The white of eggs beaten up, or eggs lightly cooked (if the patient can digest them), will be useful. To relieve the hot skin, the whole body (one part at a time) should be sponged over with tepid water twice or thrice in the twenty-four hours. If the patient is clearly able to bear it, a warm bath, once or twice a day, may be given to cool the body. After the sponging or bath, when the skin has been dried, the whole surface may be rubbed over with oil, lard, or cold cream. This is very cooling and agreeable, and may be repeated as often as convenient. The throat requires special attention. When there is much swelling, ice is very useful. Young children can take it as iced water, in teaspoonfuls given frequently. When ice cannot be obtained, steam may be inhaled from a narrow-mouthed jug or other vessel, but not from the spout of a tea-pot, which is most unsafe. Warm linseed poultices, round the front of the neck and reaching up to the ears, give much relief; the poultices should be well covered up with flannel to retain the heat.

N.B.—In all serious cases no time should be lost in sending for a medical practitioner.

239. In consequence of the similarity of the complaints, and the number of deaths set down to a combination of both, it is misleading to consider the deaths caused by diphtheria apart from those caused by croup. Taking the two affections together, they were to every 10,000 of the population in the proportion of 5.49 in 1888, 3.83 in 1887, 2.85 in 1886, 3.23 in the five years ended with 1885, and 6.19 in the ten years ended with 1880. The proportion, although higher in 1888 than it had been during the previous eight years, was lower than that for any of the following foreign countries except Ireland, England, Holland, Scotland, and European Russia; that in the previous five years was lower than in any except Ireland and England; whilst that in the decade preceding these five years was higher than in those countries or in Holland, Scotland, Russia, or Switzerland, as will be seen by the following figures:—

Diphtheria
and croup.

ANNUAL DEATH RATE FROM DIPHTHERIA AND CROUP IN VARIOUS COUNTRIES, 1881 TO 1884.*

	Deaths from Diphtheria and Croup per 10,000 persons living.	Deaths from Diphtheria and Croup per 10,000 persons living.
Austria	16·63	South Australia (1878 to 1887) 5·93
Prussia	15·45	Scotland (8 towns) ... 4·99
Spain (principal towns) ...	11·83	Victoria (1878 to 1887) ... 4·16
Germany (principal towns) ...	11·54	Queensland „ ... 4·75
Massachusetts	11·13	New South Wales „ ... 4·77
Austria (principal towns) ...	10·36	Russia in Europe ... 4·67
Sweden	9·79	Scotland 4·55
Sweden (principal towns) ...	9·74	Tasmania (1878 to 1887) ... 4·46
Italy	9·18	Belgium (principal towns) ... 3·79
Switzerland (principal towns)	8·49	Holland 3·76
Belgium	7·72	England and Wales ... 3·05
Spain	6·85	Ireland 2·70
Denmark (towns)	6·28	New Zealand (1878 to 1887) ... 2·42
Switzerland	6·09	

NOTE.—A circular, giving the symptoms of diphtheria and directions for its management in the absence of medical assistance, was issued by the Central Board of Health during the early part of 1888, and was republished in the *Victorian Year-Book*, 1887-8, Volume I., paragraph 664.

Whooping-
cough.

240. Deaths from whooping-cough in 1888 were in the proportion of 1·98, in 1887 of 1·27, in 1886 of 2·12, in the previous five years of 1·53, and in the ten years ended with 1880 of 2·48 per 10,000 persons living. All these proportions, as well as those in the other Australasian colonies, are lower than those generally prevailing in most of the foreign countries named in the following table:—

ANNUAL DEATH RATE FROM WHOOPING-COUGH IN VARIOUS COUNTRIES, 1881 TO 1884.†

	Deaths from Whooping-cough per 10,000 persons living.	Deaths from Whooping-cough per 10,000 persons living.
Austria	10·63	Austria (principal towns) ... 2·74
Scotland (8 towns)	9·64	Spain (principal towns) ... 2·68
Belgium	7·18	Italy 2·45
Denmark	6·62	Switzerland 2·31
Scotland	6·23	South Australia (1878 to 1887) 2·19
Prussia	5·40	New Zealand „ ... 2·42
England and Wales	4·67	New South Wales „ ... 1·93
Holland	3·82	Sweden 1·80
Germany (principal towns) ..	3·48	Victoria (1878 to 1887) 1·79
Belgium (principal towns) ...	3·37	Queensland „ ... 1·51
Ireland	3·18	Tasmania „ ... 1·44
Spain	3·14	Massachusetts 1·16
Sweden (principal towns) ...	2·98	Russia in Europe 23
Switzerland (principal towns)	2·74	

NOTE.—A circular on whooping-cough and its treatment, issued by the Central Board of Health, was republished in the *Victorian Year-Book*, 1887-8, Volume I., paragraph 666.

* Except those for the Australasian colonies, the figures have been taken and re-arranged from Dr. Raseri's paper, page 193.

† Except those for the Australasian colonies, the figures have been taken from Dr. Raseri's paper, page 193.

241. Deaths from typhoid fever in 1888 numbered 541 or 90 less ^{Typhoid fever.} than in 1887. In proportion to population, the mortality from typhoid fever in 1888 was a fraction below the average. During the last 23 years, the death rate from typhoid fever has fluctuated considerably, but, nevertheless, there were three pretty well-marked maximum periods, viz., 1866-7, 1877-8, and 1883, when the rates rose to over $6\frac{1}{2}$ per 10,000 persons living; whilst from the increase in 1887, there was an appearance of a fourth maximum period, this, however, did not take place, but a diminished mortality from typhoid fever occurred in the following year. The minimum periods are not so well marked; but the two principal ones appear to be 1871-3 and 1880-81, when the average rate was below 4 per 10,000. Typhoid fever causes, on the average, over 3 per cent. of the total deaths from all causes, and as many as 13 per cent. of those at between 10 and 25 years of age. The following table shows the number of deaths from typhoid fever, and their proportion to the population, during each of the past 23 years:—

DEATHS FROM TYPHOID FEVER, 1866 TO 1888.*

Year.	Deaths from Typhoid Fever.		Year.	Deaths from Typhoid Fever.	
	Total Number.	Number per 10,000 persons Living.		Total Number.	Number per 10,000 persons Living.
1866	528	8.39	1879	438	5.25
1867	455	7.06	1880	297	3.49
1868	295	4.45	1881	351	4.04
1869	360	5.24	1882	472	5.30
1870	416	5.83	1883	661	7.26
1871	269	3.65	1884	456	4.88
1872	323	4.29	1885	424	4.42
1873	282	3.68	1886	523	5.30
1874	470	6.04	1887	631	6.19
1875	455	5.78	1888	541	5.09
1876	375	4.71			
1877	532	6.58	Mean ...	439	5.36
1878	532	6.48			

242. In consequence of the very serious and fatal prevalence of typhoid fever, the Central Board of Health in January, 1889, issued the following circular with the view of informing Local Boards, Health Officers, Local Sanitary Inspectors, and the public generally of the importance of certain precautions which ought to be observed, and the increased powers which Parliament has conferred to check the spread of the disease:—

* In the new classification, simple continued fever is entered as a separate complaint from typhoid fever, but as no such distinction was observed in former years, cases occurring in 1886 and 1887, which might possibly have been placed under the former head have, for the sake of comparison, been still placed under the latter.

TYPHOID FEVER.

1. The regulations of 23rd April, 1885 (which apply immediately on the occurrence of typhoid fever), require local boards to remove frequently and regularly all refuse matter, and to keep clean all drains, channels, etc. With very few exceptions, no special action under this clause is known to have been taken, although in some districts, on an outbreak of typhoid fever, a house-to-house inspection has been ordered, and, in two or three instances, special inspectors have been appointed.

2. Whenever typhoid fever occurs, all drains on the infected premises are required to be properly cleansed once at least in every twenty-four hours. This requirement has not hitherto been carried out by local authorities generally. It is the duty of the health officer to see that all such drains are flushed daily with solution of chloride of lime or sulphate of iron.

3. The medical attendance and medicines needed by destitute persons suffering from any contagious disease, such as typhoid fever, are to be provided by the local board of the district. In the majority of districts, no systematic attention has been given to this regulation, nor to the urgent necessity for temporary hospital accommodation.

4. All private closets must be kept clean, and emptied at least once in each week. Disinfectants and deodorants are specially necessary. All public closets (*viz.*, at railway stations, schools, places of public amusement, factories, etc.) ought to be emptied and disinfected daily. It is believed these matters are too often disregarded, and, in the majority of cases, local bye-laws requiring earth, ashes, or other efficient deodorant, to be left ready for use in all closets (public and private) are ignored. The generally neglected condition of closets, the absence from them of earth, ashes, or some suitable substitute, and the nuisances attending (in most districts) the night-cart service, arouse the astonishment of visitors, and cause constant and serious public annoyance, even where health is not actually endangered. In framing the regulations of April, 1885, the Central Board required that closets should be emptied once *at least* in every week. Experience has proved, however, that the discretion thus given has been abused, and it is clear that, if typhoid fever is ever to be checked, more rigorous measures must be prescribed, and local inspectors must be decidedly more vigilant and energetic. Failure to enforce bye-laws with regard to closets is so offensive in its results that it is a matter of surprise such misconduct is tolerated. From the date of the new Act, local inspectors neglecting their duty are liable to a fine of twenty pounds, and the Central Board has already given directions for a prosecution of an inspector.

5. The system of removing the contents of closet pans in tank carts, and during the night, leads to serious nuisance, and affords opportunity for spilling the contents of the carts on roads and vacant allotments. If done by day by means of closed pans (as at St. Kilda)—properly cleansed pans being left in place of those taken away—the intolerable smell in the public streets would not be experienced, and the chance of spilling the contents of the carts, reduced almost to a minimum. As the new Act enables local boards to put on a special rate for the purpose, little excuse remains for the continuance of the present offensive and dangerous method of removal.

6. The manner in which the contents of street gutters are swept into heaps and left to dry and then to blow into houses and shops, and over the persons of passers-by, is a serious annoyance, and a distinct danger to health. Attention has been already specially drawn to this question by the Central Board, both in its general report for 1886-7* and by circular to local boards. In too many districts this offensive method is continued, instead of the carters following the scavengers and taking away the street sweepings at once.

7. The absolute necessity for “destructors” in place of the present abominable “tips,” has been urged by the Central Board again and again. In a lecture recently delivered at Bombay, a well-known sanitary authority says:—“The practice of levelling-up waste land in the neighbourhood of habitations with vegetable and animal rubbish cannot be too strongly condemned; the refuse cut off from direct contact with the atmosphere decomposes mostly by putrefaction, and will continue for years to give off the most unhealthy emanations.”

8. Typhoid fever does not confine its ravages to poor and crowded neighbourhoods, nor have such localities a monopoly of dirt. The yards and back premises of many well-built and handsome houses are sometimes (through carelessness of servants and otherwise) in a very neglected and offensive state, but little attention seems to be paid to such places by local inspectors. The more influential the ratepayer offending, the better example it is to prosecute.

9. Inquiry has often been made as to the duties of a local inspector. The Central Board two years ago drew up a memorandum on the subject, which was published in its annual report of 1st June, 1887.*

10. The clause which the Central Board, at the instance of a large number of health officers, sought to have included in the new *Health Act* providing power for immediate isolation of infectious and contagious cases, was not approved by Parliament; but in any outbreak of sufficient importance local authorities can at once apply for the assistance of the powers contained in the 75th section of the Act 782.

11. When a case of typhoid fever occurs, the precautions recommended in the Central Board regulations and in the sheet headed "Typhoid fever" (copies of which are always supplied) should be strictly observed. It is the duty of local boards to provide a separate service, at the cost of the municipality, for the destruction by fire of the excreta of persons attacked. If such service has not been organised in any district in which typhoid fever appears, careful disinfection by solution of corrosive sublimate is strongly recommended.† Full information is given in the Central

* Pages o and o.

† See Central Board's last general report, 1st June, 1888, page 12. The following extract is re-published for general information. It is from a paper drawn up by the Government Analyst:—

"Sullivan's Disinfectant is a solution of chloride of aluminum and chloride of calcium. Chloride of calcium must not be confounded with chloride of lime, which is more correctly chlorinated lime. Sullivan's Disinfectant is a useful preparation; it acts as a deodorant and antiseptic, but its power as a disinfectant is limited, especially diluted, as it usually is, in application. Condy's Fluid is a disinfectant and deodorant; it acts by the readiness with which it parts with its available oxygen. Organic bodies, 'disease germs,' are known to be, in most cases, organized bodies, and abstract oxygen from it, and are then, as it may be said, burnt up. Offensive emanations from putrid organic matter are thus rapidly oxidized, deodorized, and rendered inert, more or less, according to the strength of the solution of course, as pointed out in my paper, which the Health Society did me the honour to print. No non-volatile liquid can produce any direct effect upon matter floating in the air; for that purpose it is necessary to have recourse to volatile or gaseous disinfectants, such as chlorine, sulphurous-acid gas, etc.; but the application of such vapours in the open air is of little practical value. We must prevent atmospheric pollution *ab initio*. I have ventured these prefatory remarks, and will now, as well as I can, take queries seriatim.

"1. *Drains*.—If drains are properly constructed with cemented or asphalted joints, with proper fall, and no illness exists in the house, I consider flushing with water alone sufficient; if any disinfectant is considered necessary, I recommend, as most effective and reliable, 'chloride of lime.' It must be of good quality, containing about 30 per cent. of available chlorine, 4 oz. to 8 oz. of which, well mixed with one gallon of water, is a proper strength for use. Of course, no dejections or secretions from persons suffering from any zymotic disease should be allowed by any possibility to get into drains or closets; in such cases, all such matters should be treated with a solution of—

Corrosive sublimate	..	..	..	..	$\frac{1}{4}$ oz.
Pernanganate of potash	..	..	..	..	1 oz.
Water	..	..	..	..	1 gallon.

To be used for covering all fæcal and other discharges, which must be left in contact for four or six hours, and then buried deep and covered with earth, or follow the directions given in the Central Board of Health's sheet on 'Typhoid.'

"2. *Wash-houses, Soapsuds, etc.*—As the troughs and other utensils are so frequently exposed to the action of hot and nearly boiling water, it would seem that general cleanliness is all that is necessary, and free ventilation. Soapsuds are decomposed easily by most disinfectants, with separation of fatty matter, and their application is therefore undesirable.

"3. *Closets*.—This is a most difficult question to deal with, but it seems to me that, under our present pan system, all that can be done is to use any dry absorbent substance, such as sifted ashes from the grates or hearth. This I can strongly recommend. Pinewood sawdust, dry earth, or any absorbent powders may be used when ashes are not available. Liquid preparations are objectionable for obvious reasons. The quantity used should be sufficient to just cover each dejection. Closets ought to be as open to the air as possible, with louvred roofs and doors.

"4. *'Disinfectants to prevent Disease.'*—Here our power is extremely limited. I do not believe that there is any disinfectant which can be applied, except preventively, and accompanied by general sanitation. Fresh air and sunlight are, in my opinion, Nature's best disinfecting agencies. Sulphur, 1 lb. to every 1,000 cubic feet may be used. If the sulphur is moistened with spirit it will burn more readily. Of course, all crevices and openings must be perfectly closed with paper and paste; the sulphur placed upon an iron tray in the middle of the room. Heat, at 230° Fahr., is recommended in the Central Board of Health's paper.

"With reference to the observation upon the divergence of opinion expressed in the publications of the Health Society upon Condy's Fluid, I can only reiterate my former statement. Condy's Fluid, which is a solution of permanganate of potash in water, about 8 grains to the ounce, is a disinfectant and deodorant, and not, strictly speaking, an antiseptic. It is non-volatile, and can

Board's special report of 1877, and in its sheet on typhoid fever.* It must never be forgotten that corrosive sublimate is a deadly poison. Copies of the report just mentioned have been distributed to all local boards throughout the colony, and in other ways. Any health officer or inspector can obtain a copy from the Secretary of the Central Board, as well as supplies of the sheet.

12. The deposit of dirty tins, offal, and rubbish, on vacant land, and in lanes and rights-of-way, may usually be checked by local boards under the laws and regulations already existing. If in any district special difficulties occur, a bye-law should at once be made by the local board under the last sub-section of section 24 of the Act 782, and sent to the Central Board for confirmation and publication in the *Government Gazette*. Offensive deposits causing a nuisance ought to be promptly removed by the city or town scavengers, and efforts made to detect and punish the offenders.

13. Persons who cause obstructions in gutters and drains by sweeping into them rubbish, paper, or any offensive matter, instead of burning such rubbish or putting it in the dust-bin for removal, should be rigorously prosecuted. Disinfectants should be liberally used over all exposed surfaces from which filth has been removed.

14. Contents of dust-bins, all animal refuse, and offensive substances, should be effectively deodorized as often as may be necessary. The state of receptacles for offal and excreta, as well as dust-bins, requires close attention. During outbreaks of contagious disease, contents of dust-bins should be removed by local authorities at least twice in each week.

15. Hotels, common lodging-houses, and any establishment sub-let in small holdings, always require particular attention.

16. Whenever there is stink, accumulation or soakage of house refuse, or decaying animal or vegetable matter, the nuisance should be abated as speedily as possible, and care taken not to let it recur. Examinations should be made constantly as to efficient working of sewers and drains, and any defect therein, or any nuisance arising therefrom, or from foul ditches, or accumulation of water, whether under houses or otherwise, should be got rid of without delay. Ventilation of sewers, ventilation and trapping of house-drains, the disconnection of cistern overflows and sink pipes from drains, should be seen to carefully and frequently.

17. Sources of water supply should be well and constantly examined, and water which can in any way be tainted by animal or vegetable refuse, especially where there is a possibility of leakage or filtration from sewers, drains, cesspools, or foul ditches, should never be drunk. If, unfortunately, the only water which for a time can be got is open to suspicion, it ought to be boiled. Filtering of the ordinary kind cannot be trusted to purify water. The addition of wine or spirits does not obviate the dangers arising from the use of impure water. The imminent danger of allowing any sewage or other offensive matter to find its way into any reservoir or other water supply seems sufficiently obvious. The greatest care should be taken, when washing the bed or body linen of typhoid patients, that no water used should find its way into any creek or reservoir. (See the Board's Sheet on Typhoid Fever.)

18. Where there is any possible relation between the distribution of disease and milk supplies, the purity of the water used in dairies, the health of the cows and of the persons engaged in the trade should be the subject of frequent inspection. Disease can be conveyed by washing dairy-cans in impure water. Milk should be boiled immediately on its reception into a house. This custom is common in the continental countries of Europe. Rain-water tanks need frequent examination; pollution is often caused by presence of dead birds or mice, and by dirt and offensive matter blown into tanks which are not provided with a cover, or washed from the roofs of buildings with which tanks are connected. In this way, rainwater often becomes dangerous before pollution is suspected.

only 'act where it is,' and, if much diluted, is of doubtful value. If used in the proportions which I have dictated above, I believe it to be most efficient. It is certainly, in my opinion, erroneous to consider it as only a deodorant. Certainly, as the results of experiments, unless very concentrated, it will not destroy bacteria and microbes. *The only certain destroyer is fire, or heat at 230° Fahr.*

"It may be added that 'Sullivan's Disinfectant' is a useful deodorant; and 'Condy's Fluid,' is both a disinfectant and a deodorant, though of a mild type. We regard corrosive sublimate and permanganate of potash as powerful disinfectants for the discharges of typhoid-fever patients. It need hardly be pointed out that the former should be used with care, as it is an active poison. For closets, sifted ashes, earth, and sawdust (better if carbolized) can be used with great advantage."

* A copy of this sheet was re-published in the *Victorian Year-Book*, Volume I., paragraph 668.

19. Cleansing and lime-washing of offensive premises, or any place in which disease may have occurred, should be insisted on with all possible despatch.

20. Whenever proof is forthcoming of any breach of the Health Acts, Local Board's Bye-Laws, or the Central Board's Regulations, the offender should invariably be prosecuted without delay. Any officer of the Central Board, or a local board, or any member of the police force, can prosecute for any offence against a breach of the Health Acts, or any bye-law, regulation, or order made thereunder, either by a local board or by the Central Board, or for any offence against or breach of *The Police Offences Statute*, or *The Abattoirs Statute*, or any Amending Acts. No fee is chargeable on the issue of a summons under this provision. It may well be remembered that during the existence of disease the Central Board's regulations, under the 74th section of the Act 782, give opportunity for more vigorous action than can be taken at ordinary times. Local inspectors seem to have overlooked this fact. The special attention of officers empowered to prosecute is called to sections 14, 15, 17, and 18 of *The Public Health Act* 1888.

21. Complaints of local offences or local nuisances should be made in writing to the secretary of the local board of health, and the local board is bound by Act of Parliament, on the receipt of any complaint of the existence of any nuisance or cause of injury to the public health, to forthwith cause inquiry to be made into the matter of such complaint. If a local board fails in its duty, the Minister or the Central Board can in most cases interfere, but the primary duty rests with the local board and its officers.

In conclusion, the Central Board desires to express its conviction that if strong and persistent efforts are made by local authorities and by the public generally, beneficial results must immediately follow, and the horrible scourge of typhoid fever should gradually disappear.

243. The following table shows the mortality from typhoid fever in all the Australasian colonies, except Western Australia, during the fifteen years ended with 1887, or during as many of those years as the information is available for:—

DEATHS FROM TYPHOID FEVER* IN AUSTRALASIAN COLONIES,
1873 TO 1887.

Year.	Number of Deaths from Typhoid Fever.					
	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
1873 ...	282	3·68	...	...	67	4·78
1874 ...	470	6·05	...	...	78	5·03
1875 ...	455	5·78	298	5·10	158	9·16
1876 ...	375	4·71	401	6·64	72	3·91
1877 ...	532	6·58	375	5·96	105	5·38
1878 ...	532	6·48	441	6·70	197	9·53
1879 ...	438	5·25	265	3·84	132	6·16
1880 ...	297	3·49	240	3·31	54	2·03
1881 ...	351	4·04	266	3·50	85	3·30
1882 ...	472	5·30	450	5·66	166	6·31
1883 ...	661	7·26	397	4·76	255	8·89
1884 ...	456	4·88	516	5·86	563	19·10
1885 ...	424	4·42	503	5·40	541	17·52
1886 ...	523	5·30	591	6·03	408	12·27
1887 ...	631	6·19	434	4·24	245	6·91
Total ...	6,899	5·29	5,177	5·15	3,126	8·02

* Including simple continued and ill-defined fever. It is possible that in some of the colonies a few cases of remittent fever may be returned under one or other of these heads.

DEATHS FROM TYPHOID FEVER* IN AUSTRALASIAN COLONIES,
1873 TO 1887—continued.

Year.	Number of Deaths from Typhoid Fever.					
	Total.	Per 10,000 Persons Living.	Total	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.
	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 ...	68	3·48	24	2·32	127	4·41
1874 ...	97	4·82	44	4·22	161	5·05
1875 ...	94	4·53	50	4·81	340	9·47
1876 ...	92	4·22	26	2·49	195	5·03
1877 ...	84	3·63	41	3·86	133	3·26
1878 ...	106	4·37	50	4·61	131	3·11
1879 ...	101	3·97	38	3·42	208	4·64
1880 ...	63	2·39	29	2·55	177	3·73
1881 ...	85	2·95	33	2·81	137	2·78
1882 ...	146	5·03	36	2·98	128	2·51
1883 ...	135	4·51	64	5·15	182	3·44
1884 ...	151	4·89	50	3·89	118	2·15
1885 ...	145	4·63	30	2·27	128	2·26
1886 ...	106	3·39	47	3·47	134	2·30
1887 ...	153	4·88	112	8·01	168	2·82
Total ...	1,626	4·11	674	3·79	2,467	3·80

Deaths from
typhoid
fever in the
colonies,
1887, and
previous
years com-
pared.

244. In Victoria, South Australia, and Tasmania, the death-rate from typhoid fever in 1887 was above, but in the other colonies it was below the average. The rate in Victoria, although higher than in the previous year, was still considerably below the exceptionally high rate which prevailed in 1883. In Queensland the mortality from typhoid fever in 1884 and the two following years was simply enormous, amounting to 19, 17½ and 12¼ per 10,000 of the population in the three years respectively, but it fell off considerably in 1887, and was below the average, although still higher than in any of the other colonies except Tasmania; in which colony the complaint prevailed in an epidemic form in 1887, and caused as many as 8 deaths per 10,000 of the population.

Typhoid
fever in
England
and Wales.

245. In England and Wales the mortality from typhoid or enteric fever† has been considerably reduced of late years, and it is now lower than in any of the Australasian colonies, except Tasmania and New Zealand. During the ten years ended with 1880 the mean death rate therefrom was 4·30, but in the six years ended with 1887 only

* Including simple continued and ill-defined fever. It is possible that in some of the colonies a few cases of remittent fever may be returned under one or other of these heads.
† The English figures quoted are those of enteric, or typhoid, and simple continued fever, which probably correspond with the fevers tabulated as typhoid in Victoria.

2·49 per 10,000 persons living, the latter being even lower than the minimum rate (3·49) recorded in Victoria during the last twenty-three years.

246. In the returns of most European countries deaths from typhoid fever are not distinguished from those caused by typhus, the latter being a complaint which it is said does not exist in the Australasian colonies. In England and Wales these fevers have been returned separately since 1869, and it is probable the following figures, so far as they relate to that country, apply to typhoid only, whilst those for most of the other countries, it is believed, refer to the two descriptions of fever combined:—

Typhoid and typhus in various countries.

ANNUAL DEATH RATE FROM TYPHOID AND TYPHUS IN VARIOUS COUNTRIES, 1881 TO 1884.*

	Per 10,000 Persons Living.		Per 10,000 Persons Living.
Italy	9·37	Sweden (principal towns) ...	3·95
Spain (towns)	8·35	Denmark (towns) ...	3·85
Austria	7·31	Scotland	3·77
Belgium	6·17	Scotland (8 towns) ...	3·62
Spain	5·63	Ireland	3·57
Massachusetts	5·30	Germany (principal towns)	3·56
Prussia	5·14	Sweden	2·87
Belgium (principal towns) ...	4·69	England and Wales ...	2·70
Austria (15 towns) ...	4·49	Switzerland	2·30
Switzerland (17 towns) ...	4·31	Russia in Europe ...	2·07
Holland	4·24		

247. Deaths from venereal diseases numbered 377 in the ten years ended with 1880, 218 in the five years ended with 1885, 40 in the year 1886, and 35 in 1888; being in the ratio per 10,000 of the population annually of ·47 at the first period, of ·48 at the second period, of ·41 at the third, and ·33 at the last period. If deaths from syphilis be considered apart from those caused by other venereal diseases, the numbers at the same periods would be 286, 178, 31, and 25, and the proportions ·36, ·39, ·31, and ·25, which contrast favourably with those in most of the following countries:—

Venereal diseases.

ANNUAL DEATH RATE FROM SYPHILIS IN VARIOUS COUNTRIES, 1881 TO 1884.†

	Per 10,000 Persons Living.		Per 10,000 Persons Living.
Italy	1·65	Scotland	·63
Sweden (towns)	1·16	Massachusetts	·32
Scotland (8 towns)	1·01	Switzerland	·24
Denmark (towns)	·94	Ireland	·16
England and Wales	·84	Holland	·11

* See Dr. Raseri's paper, page 193. The fevers referred to are there termed "Febbre tifoide e tifo esantematico."

† See Dr. Raseri's paper, page 193.

Venereal
disease
amongst the
aborigines.

248. Venereal disease has long prevailed amongst the Australian aborigines, and was no doubt first communicated to them by Europeans. Mr. Curr* gave it as his opinion that "it was first introduced into Australia by the whites many years ago, and has never since ceased to commit terrible ravages among our tribes. Probably this disease alone would suffice to exterminate them."

Parasitic
diseases.

249. Parasitic diseases, chief amongst which are thrush and hydatids, caused not quite 7 deaths in 1888 per 100,000 of the population, which was nearly 2 below the average of the five years ended with 1885, and $2\frac{1}{2}$ below the average of the ten years 1871 to 1880. These diseases in 1888 were more prevalent in Victoria than in England.

Hydatids.

250. Hydatid disease, which is said to be communicated to man by reason of the ova of the tape worm in dogs (*Tænia Echinococcus*) being taken into the stomach, generally in water, and to prove fatal to 25 per cent. of the human victims it attacks, during the sixteen years ended with 1888 has caused 758 deaths, or an average of 47 per annum. Per 100,000 of the population, deaths from this disease ranged from 3·79 in 1873 to 7·19 in 1879, the average for the first eight years being 5·18, for the eight succeeding years 5·57, and for the whole period 5·38. In the last four years, however, the mortality from hydatids was much below that of the previous six years. The following are the figures for the last sixteen years :—

DEATHS FROM HYDATIDS, 1873 TO 1888.

Year.	Deaths from Hydatid Disease.		Year.	Deaths from Hydatid Disease.	
	Total Number.	Number per 100,000 Living.		Total Number.	Number per 100,000 Living.
1873	29	3·79	1882	58	6·52
1874	41	5·27	1883	56	6·15
1875	47	5·97	1884	59	6·32
1876	36	4·52	1885	47	4·90
1877	37	4·57	1886	51	5·17
1878	37	4·50	1887	51	5·01
1879	60	7·19	1888	53	4·99
1880	48	5·64			
1881	48	5·50	Mean	47	5·38

Hydatids
in Aus-
tralasian
colonies.

251. According to the returns of the six years ended with 1887, as embodied in the following table, hydatids in a fatal form appear to be much more common in Victoria than in any of the other Australasian

colonies. It should be mentioned, however, that medical men sometimes enter the cause of death simply as “disease” of the liver, lungs, kidney, etc. In such cases inquiry should be made as to whether the “disease” referred to was hydatid disease or not, which may possibly not be done so rigidly in the other colonies as it is in Victoria, and for this reason the mortality from the complaint may appear to be relatively higher here than it really is:—

DEATHS FROM HYDATIDS IN AUSTRALASIAN COLONIES,
1882 TO 1887.

Year.	Number of Deaths from Hydatids.					
	Total.	Per 100,000 Persons Living.	Total.	Per 100,000 Persons Living.	Total.	Per 100,000 Persons Living.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
1882 ...	58	6·52	12	1·51	3	1·26
1883 ...	56	6·15	10	1·20	4	1·50
1884 ...	59	6·32	20	2·27	8	2·71
1885 ...	47	4·90	28	2·92	3	·97
1886 ...	51	5·08	23	2·35	Nil.	...
1887 ...	51	5·01	27	2·64	1	·28
Total ...	322	5·66	120	2·15	19	1·12

	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1882 ...	12	4·14	4	3·31	7	1·37
1883 ...	6	2·01	4	3·22	1	·19
1884 ...	13	4·21	6	4·67	3	·55
1885 ...	5	1·60	2	1·51	3	·53
1886 ...	18	5·76	2	1·46	4	·68
1887 ...	9	2·87	3	2·15	3	·50
Total ...	63	3·43	21	2·72	21	·64

NOTE.—In Western Australia no deaths are set down to this disease.

252. Hydatid disease is much more fatal in all the Australasian colonies than it is in England and Wales, where there were only 58 deaths from it in 1886, or a proportion of ·25 per 100,000 persons living, as compared with a mean of ·20 in the previous five years. Hydatids in England.

253. Almost any part of the body may be affected by hydatid disease. The affected part is not always mentioned in the returns, but Dr. J. D. Thomas, of Adelaide, South Australia, in his exhaustive Seat of hydatid disease.

work upon the subject of hydatids,* gives information, obtained from Australasian, European, Indian, and American sources, of the following 1,897 cases, which are here arranged according to the frequency with which the respective parts were found to be affected with the disease:—

SEAT OF HYDATID DISEASE.

Locality of Hydatid Cyst.	Cases of Hydatid Disease.	
	Number.	Proportions per cent.
Liver	1,084	57·14
Lungs	220	11·60
Kidney	90	4·75
Brain, its membranes, and cranial cavity	83	4·38
Spleen	40	2·11
Pelvis	40	2·11
Heart, pericardium, and organs of circulation	37	1·95
Abdominal cavity, place unspecified	35	1·85
Bones	31	1·63
Uterus	29	1·53
Peritoneum, omentum, and mesentery	26	1·37
Abdominal wall	21	1·11
Subcutaneous cellular tissue	21	1·11
Face, orbit, and mouth	20	1·06
Female breast	20	1·06
Pleura	19	1·00
Ovary	16	·84
Spinal canal, spinal cord and its membranes	15	·79
Muscles	13	·69
Neck	10	·53
Male organs of generation, chiefly the scrotum	7	·37
Discharged from intestines	5	·26
Mediastinum	4	·21
Trunk and limbs	2	·10
Vomited	2	·10
Expectorated	2	·10
Stomach	1	·05
Bladder	1	·05
Prostate gland	1	·05
Thorax	1	·05
Bile duct	1	·05
Total	1,897	100·00

Tape worms
in dogs.

254. Dr. Thomas mentions† that he examined the intestines of a number of dogs in Adelaide and the south-eastern district of South Australia, and of ten dogs in Melbourne, and that 40 per cent. of the former and 50 per cent. of the latter were found to contain echinococci.

* *Hydatid Disease; with special reference to its prevalence in Australia.* By John Davies Thomas, M.D. and F.R.C.S. Adelaide: Spiller, 1884. Page 124.
† Pages 191 and 192.

255. Dietic diseases, consisting principally of want of breast milk and alcoholism, caused 18 deaths in 1888 per 100,000 persons living, which proportion is 28 per cent. below the average, viz., 25. These diseases appear to be nearly four times as fatal in Victoria as in England. Dietic diseases.

256. In 1888, 130 deaths were set down to alcoholism, as against 100 in 1887, 107 in 1886, 394 in the previous five years, and 646 in the ten years preceding that period. These figures furnish annual proportions per million persons living of 122 for 1888, 99 for 1887, 108 for 1886, 86 for the quinquennium 1881 to 1885, and 81 for the decennium 1871 to 1880, and would appear to indicate that the mortality from this cause was increasing. As a matter of fact, however, returns of the mortality from alcoholism are of doubtful value, as comparatively few deaths are set down to intemperance pure and simple, although a large number of complaints are no doubt brought on or aggravated, and many lives are doubtless shortened, from that cause, which, however, is not mentioned in the returns. By the following figures, taken from Dr. Raseri's paper*—which must only be accepted for what they may be worth—the mortality from alcoholism would appear to be as high in Victoria, especially in 1886, as compared with that prevailing in most of the countries and towns named:— Alcoholism.

ANNUAL DEATH RATE FROM ALCOHOLISM IN VARIOUS TOWNS AND COUNTRIES.

	Deaths from Alcoholism per 1,000,000 persons living.		Deaths from Alcoholism per 1,000,000 persons living.
Denmark (towns) ...	274	Massachusetts ...	65
Sweden (principal towns) ...	99	Scotland ...	61
Paris ...	95	Italy ...	47
Switzerland ...	88	England and Wales ...	46
Scotland (8 towns) ...	83	Berlin ...	40
Connecticut ...	80	Vienna ...	36
Belgium ...	76	Sweden ...	34
London ...	74	Ireland ...	30
Russia in Europe ...	70	Holland ...	21

257. The collective Investigation Committee of the British Medical Association some time since enquired into the effect of the consumption of alcohol upon the duration of life, and received information respecting the habits of 4,234 males who died at different ages, all, however, being over 25 years of age. The result of this enquiry was published in the *British Medical Journal* of the 23rd June, 1888,† and is to the effect that Effects of alcohol on longevity.

although strict moderation in the consumption of alcoholic drink is favourable to longevity, total abstinence is not so—the average lifetime in the group containing the total abstainers being apparently shorter than that of the members of any of the other four groups into which the individuals respecting whom observation was made were divided. The following is a description of the five groups, and a statement of the average age at death of the members of each group :—

EFFECTS OF ALCOHOL ON THE LONGEVITY OF MEN.

Alcoholic Groups.	Average Age at Death.	
	Years.	Days.
1. THE HABITUALLY TEMPERATE. —Men who drink small amounts, and only with meals, and rarely take spirits except for medicinal purposes (the latter part of the definition not to apply to whisky drinking countries)	62	50
2. THE CARELESS DRINKERS. —Men who, without being intemperate or free drinkers, yet do not confine themselves within a rigid rule; who do not demur to drinking spirits occasionally as a beverage; who may at times drink between meals or even to the extent of intoxication occasionally, but who do not make these practices a habit; and, on the average, do not materially exceed what has been termed the “physiological amount” of 1½oz. of pure alcohol daily	59	246
3. THE FREE DRINKERS. —Men who drink a fair amount, or take their wine freely, habitually exceeding the physiological amount to a material extent; but yet who cannot be called drunkards or considered to have forfeited their character for sobriety	57	216
4. THE INTEMPERATE. —Drinking men, hard drinkers and drunkards	52	14
5. THE TOTAL ABSTAINERS	51	80

Constitutional diseases.

258. The name “Constitutional Diseases”—originally used in the old—has been continued in the new classification as applying to a group of complaints of obscure origin, which the committee of the Royal College of Physicians did not attempt to classify or even name in their own classification. These complaints for the most part appear to arise from morbid poisons—deeply seated and widely diffused throughout the system, affecting several organs, in which new products are often deposited. The most prominent are phthisis and other tubercular diseases, and cancer; also rheumatism, gout, and diabetes mellitus. Under this class there were, in 1888, 244 deaths per 100,000 of the population, or 11 more than the average of the five years 1881–85, and 28 above the average of the decade 1871–80. Of the 244

deaths per 100,000 referred to, 144 resulted from phthisis, or pulmonary consumption; 49 were set down to cancer; 35 to tabes mesenterica, acute hydrocephalus and other tubercular or scrofulous diseases; and 16 to other constitutional diseases.

259. Phthisis, or pulmonary consumption, caused 1,528 deaths in Phthisis. 1888, or 29 fewer than in the previous year. Except during the prevalence of epidemics, phthisis is the occasion of more deaths in Victoria than any other disease*; next to phthisis, diarrhoea is the most fatal disease on the list,* but this complaint causes less than two-thirds of the number of deaths set down to phthisis. It should moreover be borne in mind, as showing the baneful effects of phthisis as compared with those of the other diseases named, that the deaths ascribed to diarrhoea are for the most part those of infants and young children, whilst the majority of the victims of phthisis are at the adult period of life. The following table shows the number of deaths from phthisis and their proportions to the total population, in each of the last twenty-eight years:—

DEATHS FROM PHTHISIS IN VICTORIA, 1861 TO 1888.

Year.	Deaths from Phthisis.		Year.	Deaths from Phthisis.	
	Total Number.	Number per 10,000 Persons Living.†		Total Number.	Number per 10,000 Persons Living.†
1861 ...	753	13·94	1876 ...	1,010	12·68
1862 ...	707	12·90	1877 ...	1,088	13·46
1863 ...	717	12·74	1878 ...	1,124	13·68
1864 ...	686	11·70	1879 ...	1,058	12·69
1865 ...	741	12·12	1880 ...	1,175	13·82
1866 ...	782	12·43	1881 ...	1,199	13·80
1867 ...	793	12·31	1882 ...	1,274	14·31
1868 ...	746	11·25	1883 ...	1,212	13·30
1869 ...	893	12·99	1884 ...	1,359	14·55
1870 ...	888	12·45	1885 ...	1,384	14·44
1871 ...	841	11·41	1886 ...	1,375	13·93
1872 ...	876	11·63	1887 ...	1,557	15·26
1873 ...	945	12·34	1888 ...	1,528	14·39
1874 ...	1,011	13·00	Total in 28 years		28,749
1875 ...	1,027	13·04			

NOTE.—Deaths registered as occurring from hæmoptysis are included in this table.

260. By the figures in the table it appears that the death rate from phthisis fell with tolerable steadiness from 1861 to 1871, but since that period there has, on the whole, been a gradual increase. During

Death rate from phthisis.

* See table following paragraph 220 *ante*.

† For figures of mean population used in making these calculations, see table "Breadstuffs Available for Consumption" in Part "Production" *post*.

the whole period of twenty-eight years the deaths from this complaint were in the proportion of 13 to every 10,000 persons living; during the first ten of those years that proportion was about $12\frac{1}{2}$ (12·483); in the second ten it was over $12\frac{3}{4}$ (12·775), and in the last eight it was $13\frac{2}{5}$ (13·398). It will be observed that the death rate from phthisis in 1888 (14·39 per 10,000) was lower than in 1887, 1885, or 1884, but higher than in any other year of the period.

Deaths of
males and
females
from
phthisis.

261. Phthisis in Victoria generally affects males more heavily than females. In 1888, 936 of the former, and 592 of the latter, died of that complaint; the males being in the proportion of 16·56, but the females of only 11·91, per 10,000 of their respective sexes living.

Ages at
death from
phthisis.

262. The following table gives the number of deaths from phthisis at each age in 1888; also the proportion which such deaths bore to the total deaths from all causes in 1888 and in the ten years ended with 1880:—

DEATHS FROM PHTHISIS, 1888.—AGES AT DEATH.

Ages.	Number who Died from Phthisis, 1888.			Percentage of Deaths from Phthisis to those from all Causes.	
	Males.	Females.	Total.	1888.	Ten Years: 1871-80.
Under 5 years ..	9	16	25	·42	·51
5 to 10 ..	7	8	15	2·80	1·40
10 „ 15 ..	3	12	15	5·52	5·15
15 „ 20 ..	29	53	82	18·64	21·22
20 „ 25 ..	105	108	213	31·84	32·22
25 „ 35 ..	227	193	420	32·11	29·18
35 „ 45 ..	156	100	256	22·61	20·27
45 „ 55 ..	189	57	246	16·36	13·69
55 „ 65 ..	149	39	188	10·00	8·30
65 „ 75 ..	53	6	59	4·00	2·97
75 years and upwards ...	9	...	9	·86	·83
Total ...	936	592	1,528	9·38	8·29

Phthisis
most fatal
to adults.

263. From a comparison of the figures in the last two columns, it will be observed that in proportion to the total deaths the mortality from phthisis in 1888, at nearly all periods of life, except under 5 and between 15 and 25 years of age, was considerably above the average. In the year under review, nearly one-third of the deaths in the colony between the ages of 20 and 35, nearly one-fifth of those between 15 and 20, nearly one-fourth of these between 35 and 45, and nearly a sixth of those between 45 and 55, were caused by phthisis.

264. Of the 1,528 deaths from phthisis in 1888, 904 occurred in Melbourne and suburbs (Greater Melbourne) and 624 in other parts of the colony. In proportion to population, the deaths from phthisis have always been much more numerous in the metropolis than in the remainder of the colony, as is shown by the following figures, which are the results for twenty-eight years:—

Phthisis in
Melbourne
and
country.

DEATHS FROM PHTHISIS PER 10,000 PERSONS LIVING IN AND
OUTSIDE GREATER MELBOURNE, 1861 TO 1888.

Year.	Greater Melbourne	Extra- Metropolitan Districts.	Year.	Greater Melbourne	Extra- Metropolitan Districts.
1861 ...	23.44	10.63	1877 ...	22.74	9.29
1862 ...	24.64	8.71	1878 ...	22.62	9.63
1863 ...	23.71	8.79	1879 ...	21.77	8.45
1864 ...	20.08	8.70	1880 ...	23.95	8.92
1865 ...	22.11	8.57	1881 ...	22.71	9.45
1866 ...	20.42	9.53	1882 ...	23.09	10.03
1867 ...	21.56	8.87	1883 ...	22.27	8.80
1868 ...	20.83	7.63	1884 ...	24.45	9.32
1869 ...	23.87	8.83	1885 ...	23.92	9.10
1870 ...	22.49	8.56	1886 ...	21.25	9.51
1871 ...	22.08	7.20	1887 ...	23.22	10.31
1872 ...	18.69	8.62	1888 ...	21.55	9.71
1873 ...	20.51	8.77			
1874 ...	22.04	8.94	Means ...	22.28	9.02
1875 ...	21.46	9.25			
1876 ...	22.46	8.28			

265. In England and Wales, in the twenty-six years ended with 1887, the death rate from phthisis, per 10,000 persons, ranged from 26.02 in 1866 to 15.91 in 1887, the mean of the first five years of the period having been as high as 25.32, whilst that of the last five years was as low as 17.49.* The latter proportion, though considerably lower than that of Greater Melbourne, is still much higher than that of Victoria taken as a whole. It may be remarked that there is no doubt the death rate from phthisis in the metropolis has for years past been swelled by the presence of persons who started from Europe whilst suffering from the disease in an advanced stage, and who were induced to take the voyage under the hope that benefit might be derived from the Australian climate, but have landed in Melbourne only to die there.

Death rate
from
phthisis in
England.

266. Of the 198 Chinese who died in Victoria in 1888, 37, or 18 per cent., fell victims to phthisis. In the previous year 15 per cent. of the deaths of Chinese were from phthisis.

Phthisis
among
Chinese.

* See Fiftieth Report of the Registrar-General of England, pages liv. and lvi.

Phthisis
among
Aborigines.

267. Four out of the 12 deaths of Aborigines in 1888 were set down to phthisis. Mr. Henry Jennings, Vice-Chairman of the Board for the Protection of the Aborigines, in his report dated 1st July, 1879,* says—"Lung disease" (with which he probably includes phthisis) "is the chief cause of the death of the Aborigines, who, when once affected, very seldom recover;" and Mr. Richard Bennet, in an article entitled *Some Account of Central Australia*,† says, with reference to the Australian Aborigines generally, "From my experience among the blacks, I believe nine-tenths of them die of consumption." The late Mr. E. M. Curr, in his admirable and exhaustive work *The Australian Race*, remarked on the subject as follows ‡ :—

"During the first eight years of my residence amongst several large tribes near Echuca, in 1841, I can recollect no instance of consumption; nor, though I have made inquiries on the subject of a few old residents who were good observers, have I heard of more than one death of that disease at that period. Nowadays, a large portion of the blacks and half-castes located on the Aboriginal stations maintained by the Victorian Government fall victims to this complaint. Generally they are the offspring of parents who have suffered from venereal. With many about 17 years of age, very little work brings on spitting of blood. Others spit blood without work—many women, for instance; but those who were matured before consumption became common are strong and healthy. But besides blacks who live on our establishments, and under conditions new to the race, the reader will find my correspondents from localities far removed from civilization pointing out that, even there, the principal disease among the blacks is consumption, and that they are dying out of it, even in places where their primitive mode of life is but little interfered with. Can one help asking, what is the cause of this late great and apparently increasing prevalence of consumption amongst the race? Can it have come from the whites?"

Phthisis in
Austral-
asian
colonies.

268. The rate of mortality from phthisis in Victoria would appear, by the calculations in the following table, to have been, over a series of years, lower than in Queensland, but much higher than in any other of the Australasian colonies. It will be observed that the figures of the other colonies in the several years exhibit more variation than those of Victoria, and that Queensland is the only colony besides Victoria in which the rate in any of the years exceeded 13 per 10,000; also that the rate in Queensland in 1884 and 1885, viz., 19 per 10,000, was most exceptionally high § :—

* See Fifteenth Report of the Board, Parliamentary Paper No. 68, Session 1879.

† See *Victorian Review* for April, 1880, page lxxv.

‡ Volume I., page 227 : Ferres, Melbourne, 1886.

§ It is pointed out by the Registrar-General of Queensland, in recent Annual Reports, that the death rate from phthisis as well as from other complaints in that colony is considerably swelled by the high mortality amongst the Polynesians, and that the diminished mortality since 1884-5 is probably to some extent due to the gradual decrease of the Polynesian element, viz., from 4½ per cent. in 1884 to only 2½ per cent. in 1887 of the total population. Nearly half the deaths from phthisis in 1884 and 1885, and nearly two-fifths in 1886 and 1887 were of Polynesians, although they form a very small section of the total population. Excluding the Polynesians from the calculation, the death rate from phthisis in Queensland in 1884 was only 10·4, in 1885 only 10·5, in 1886 only 9·2, and in 1887 only 10·2 per 10,000. It is stated that the general death rate of Polynesians in Queensland during 1884 was as high as 148, and during 1885 as high as 99, per 1,000.

DEATHS FROM PHTHISIS IN AUSTRALASIAN COLONIES,
1873 TO 1887.

Year.	Number of Deaths from Phthisis.					
	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.	Total.	Per 10,000 Persons Living.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
1873 ...	945	12·34	...	...	145	10·35
1874 ...	1,011	13·00	...	...	163	10·51
1875 ...	1,027	13·04	614	10·50	228	13·22
1876 ...	1,010	12·68	616	10·21	260	14·12
1877 ...	1,088	13·46	597	9·49	225	11·53
1878 ...	1,124	13·68	652	9·91	263	12·72
1879 ...	1,058	12·69	746	10·80	281	13·12
1880 ...	1,175	13·82	803	11·06	301	13·56
1881 ...	1,199	13·80	874	11·50	292	13·21
1882 ...	1,274	14·31	927	11·66	404	17·00
1883 ...	1,212	13·30	948	11·36	471	17·58
1884 ...	1,359	14·55	1,018	11·56	572	19·40
1885 ...	1,384	14·44	1,078	11·58	593	19·20
1886 ...	1,375	13·71	1,051	10·73	494	14·86
1887 ...	1,557	15·27	977	9·56	441	12·43
Total ...	17,798	13·61	10,901	10·76	5,133	14·19
	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 ...	153	7·84	115	11·10	206	7·16
1874 ...	179	8·89	101	9·69	270	8·47
1875 ...	209	10·07	114	10·97	339	9·45
1876 ...	226	10·36	102	9·75	307	7·92
1877 ...	203	8·78	127	11·95	326	7·98
1878 ...	267	11·00	115	10·60	326	7·73
1879 ...	271	10·66	90	8·09	399	8·90
1880 ...	277	10·51	113	9·95	447	9·42
1881 ...	274	9·49	115	9·80	468	9·28
1882 ...	341	11·77	127	10·52	438	8·60
1883 ...	313	10·47	139	11·18	500	9·45
1884 ...	323	10·46	145	11·29	498	9·07
1885 ...	307	9·80	145	10·97	514	9·08
1886 ...	339	10·85	145	10·57	500	8·48
1887 ...	353	11·27	154	11·01	534	8·95
Total ...	4,035	10·15	1,847	10·50	6,072	8·66

269. Deaths from tubercular diseases, viz., tabes mesenterica, tubercular meningitis (acute hydrocephalus), phthisis, and "other forms of tuberculosis," taken as a whole numbered 13,052 in the ten years 1871 to 1880, 7,932 in the five years 1881 to 1885, 1,732 in the year 1886, 1,946 in 1887, and 1,900 in 1888. These numbers furnish

Tubercular diseases.

proportions per 10,000 of the population of 16·36 deaths annually at the first period, 17·38 at the second, 17·55 at the third, 19·08 at the fourth, and 17·89 at the fifth, which are all lower than the proportions relating to any of the subjoined countries except Spain:—

ANNUAL DEATH RATE FROM TUBERCULAR DISEASES IN VARIOUS COUNTRIES, 1881 TO 1884.*

					Deaths from Tubercular Diseases per 10,000 persons living.
Austria (principal towns) ... ..	...	...	...	...	72·20
Austria ... ..	...	...	...	...	38·39
Belgium (towns) ... ..	...	...	...	...	35·11
Germany (principal towns) ... ..	...	...	...	...	34·40
Massachusetts ... ..	...	...	...	...	34·25
Switzerland (towns) ... ..	...	...	...	...	32·50
Sweden (towns) ... ..	...	...	...	...	31·61
Scotland (8 towns) ... ..	...	...	...	...	31·12
Prussia ... ..	...	...	...	...	30·88
Belgium ... ..	...	...	...	...	30·48
Denmark (towns) ... ..	...	...	...	...	30·42
Spain (towns) ... ..	...	...	...	...	29·24
Scotland ... ..	...	...	...	...	25·93
Italy ... ..	...	...	...	...	25·54
Ireland ... ..	...	...	...	...	22·43
Switzerland ... ..	...	...	...	...	21·79
England and Wales ... ..	...	...	...	...	21·09
Holland ... ..	...	...	...	...	19·73
Spain ... ..	...	...	...	...	12·32

Deaths from
cancer in
Victoria.

270. Next to phthisis, the most fatal of the constitutional diseases is cancer. This complaint caused 521 deaths in 1888, or 6 less than in the previous year. Cancer in a fatal form has been much increasing of late years, for during the ten years ended with 1880 it caused only 1 death in every 41 from all causes, but in 1888 the proportion had risen to 1 in 31; moreover since 1861 the death rate from it has increased steadily from less than 2 to over 5 per 10,000 of the population. The following table shows the number of deaths from cancer, and the number per 10,000 persons living, in each of the last twenty-eight years:—

* See Dr. Raseri's paper, page 193. The diseases referred to are there termed "Tuberculosis diffusa, Tisi polmonare, Tuberculosis meningea, ed Idrocefalo."

DEATHS FROM CANCER, 1861 TO 1888.

Year.	Deaths from Cancer.			
	Total Number.			Number per 10,000 Persons Living.
	Males.	Females.	Total.	
1861	52	50	102	1·89
1862	30	50	80	1·46
1863	58	45	103	1·83
1864	55	72	127	2·17
1865	81	70	151	2·47
1866	52	64	116	1·84
1867	63	57	120	1·87
1868	95	88	183	2·76
1869	85	99	184	2·68
1870	109	105	214	3·00
1871	100	93	193	2·62
1872	130	96	226	3·00
1873	122	128	250	3·27
1874	146	122	268	3·45
1875	168	140	308	3·91
1876	150	153	303	3·80
1877	169	160	329	4·07
1878	182	132	314	3·82
1879	205	178	383	4·59
1880	202	181	383	4·50
1881	172	179	351	4·04
1882	208	165	373	4·19
1883	234	216	450	4·94
1884	221	225	446	4·78
1885	234	211	445	4·64
1886	247	249	496	5·02
1887	275	252	527	5·17
1888	276	245	521	4·91
Total in 28 years ...	4,121	3,825	7,946	3·45

271. Cancer is a complaint which generally affects females more than males.* In the twenty-eight years of which mention is made in the table, 93 of the former have died of it to every 100 of the latter, whereas the proportion of females to males at ages at which cancer is most prevalent (*i.e.*, above 30 years of age) has over the whole period† been considerably below the proportion named. In 1888, 89 females died of cancer to every 100 males, although, in the population, females over the age of 30 were in the proportion of only 78 to every 100 males.

Proportions
of the sexes
who died of
cancer.

272. Judging from the experience of the six years ended with 1887, cancer is more fatal in Victoria than in any other Australasian

Cancer in
Austral-
asian
colonies.

* The difference may not really be so great as it appears to be from the figures. See *Victorian Year-Book* 1887-8, Vol. I., paragraph 699.

† At the age referred to, females in the population were in the proportion of 42 at the census of 1861, of 59 at the census of 1871, and of 74 at the census of 1881, to every 100 males.

colony except Tasmania, the latter being a colony in which—as cancer is essentially a complaint of advanced life—the large proportion of old people would naturally result in a high death rate therefrom. The following are the figures for the six years referred to:—

DEATHS FROM CANCER IN AUSTRALASIAN COLONIES,
1882 TO 1887.

Colony.	Year.	Number of Deaths from Cancer.	
		Total.	Per 10,000 Persons Living.
Victoria ...	1882	373	4·19
	1883	450	4·94
	1884	446	4·78
	1885	445	4·64
	1886	496	4·94
	1887	527	5·17
	Mean of 6 years	456	4·78
New South Wales...	1882	215	2·71
	1883	215	2·58
	1884	233	2·65
	1885	267	2·87
	1886	333	3·40
	1887	354	3·46
	Mean of 6 years	269	2·94
Queensland ...	1882	54	2·27
	1883	70	2·61
	1884	94	3·19
	1885	53	1·71
	1886	92	2·68
	1887	81	2·28
	Mean of 6 years	74	2·46
South Australia ...	1882	89	3·07
	1883	86	2·88
	1884	109	3·53
	1885	100	3·19
	1886	104	3·33
	1887	110	3·51
	Mean of 6 years	100	3·28
Western Australia ...	1882	9	2·96
	1883	10	3·20
	1884	10	3·09
	1885	17	4·99
	1886	15	3·74
	1887	17	4·08
	Mean of 6 years	13	3·68

DEATHS FROM CANCER IN AUSTRALASIAN COLONIES,
1882 TO 1887—*continued*.

Colony.	Year.	Number of Deaths from Cancer.	
		Total.	Per 10,000 Persons Living.
Tasmania ...	1882	60	4·97
	1883	67	5·39
	1884	65	5·06
	1885	60	4·54
	1886	57	4·16
	1887	67	4·79
	Mean of 6 years	63	4·82
New Zealand ...	1882	147	2·88
	1883	158	2·99
	1884	191	3·48
	1885	177	3·13
	1886	214	3·63
	1887	238	3·99
	Mean of 6 years	187	3·35

273. In England and Wales there has for years past been a progressive increase in the death rate from cancer. This rate, in the five years ended with 1885, was somewhat higher than that prevailing in Tasmania, but much higher than that in any other Australasian colony. The following figures are taken from the fiftieth report of the Registrar-General,* who, however, in a previous report, indicated that he entertained doubts as to whether the increase shown by the figures was not partly due to improved diagnosis and more careful statement of the cause † :—

Deaths from
cancer in
England
and Wales.

DEATHS FROM CANCER IN ENGLAND AND WALES.

Deaths from Cancer per 10,000 persons living.		Deaths from Cancer per 10,000 persons living.	
1861 to 1865 ...	3·68	1886 ...	5·83
1866 to 1870 ...	4·04	1887 ...	6·06
1871 to 1875 ...	4·46		—
1876 to 1880 ...	4·95	Mean ...	4·57
1881 to 1885 ...	5·45		—

274. According to the following figures, cancer would appear to be less fatal in Victoria and Tasmania than in any of the countries named except Prussia, Ireland, and Austria; less fatal in South

Deaths from
cancer in
various
countries.

* Pages liv. and lvi.

† See Forty-sixth Annual Report, page xviii.; also *Victorian Year-Book* 1887-8, Vol. I., paragraph 699.

Australia, Western Australia, and New Zealand than in any except Prussia; and less fatal in the other two colonies than in any one of the countries referred to:—

ANNUAL DEATH RATE FROM CANCER IN VARIOUS COUNTRIES,
1881 TO 1884.*

Deaths from Cancer per 10,000 persons living.			Deaths from Cancer per 10,000 persons living.		
Austria (15 principal towns) ...	...	11·20	England and Wales ...	...	5·35
Denmark (towns) ...	...	10·98	Massachusetts ...	...	5·30
Sweden (towns) ...	...	8·71	Scotland (8 towns) ...	...	5·27
Switzerland ...	...	8·46	Scotland ...	...	5·26
Italy ...	...	6·13	Austria ...	...	4·23
Holland ...	...	5·82	Ireland ...	...	3·69
			Prussia ...	...	3·13

Develop-
mental
diseases.

275. Developmental diseases,† Class V., caused 118 deaths in 1888 to every 100,000 of the population. Of these 56 were due to diseases peculiarly affecting infants, such as premature birth and malformations, and 62 to old age. The rate of mortality from the whole class in 1888—viz., 118 per 100,000—appears to have been about 21 more than the average of the five years 1881-5, and 42 more than the average of the ten years ended with 1880; the increase, especially as compared with the last-named period, being chiefly confined to deaths from old age. The increased death rate from old age is accounted for by the circumstance that the proportion of old people in the population has increased since 1871-80 by over 90 per cent., whilst the average age of such persons has advanced also. The actual deaths of infants born prematurely numbered 462 in 1888—which number gives a proportion of $10\frac{1}{2}$ per cent. of the total deaths under 1 year, or of $1\frac{1}{3}$ per cent. of the total births recorded, which proportions closely corresponded with the average during the five years ended with 1885. The death rate from this class of complaints is always much higher in England than in Victoria.

Local
diseases.

276. Local diseases, Class VI., or diseases of special organs or systems, usually cause a much higher mortality than any other class of complaints; thus, in 1888, 7,549 deaths, or over 47 per cent. of the deaths from all causes, were ascribed to them, as against 45 per cent. in the five years 1881 to 1885. The deaths from diseases placed in this class were in 1883 in the proportion to every 100,000 of the population of 711, or 41 above the five years' average. Over a fifth of these diseases were due to affections of the brain and nerves;

* See Dr. Raseri's paper, page 193.

† This class of diseases differs from that under the old nosology; dentition, paramenia and childbirth, and atrophy and debility not being now classed as developmental diseases.

about a sixth to diseases of the circulatory system, including heart diseases; about two-sevenths to lung and throat diseases—viz., croup, bronchitis, pneumonia, pleurisy, etc.; nearly a fourth to diseases of the digestive organs; $5\frac{1}{2}$ per cent. to diseases of the urinary organs; a little over $1\frac{1}{2}$ per cent. to the accidents of childbirth; and the remainder to diseases of the integumentary, generative, and locomotive systems, of the lymphatic and ductless glands, and of the organs of special sense, in the order named. In the year under review the death rates from complaints classed under all the principal sub-classes of local diseases, except diseases of the nervous and respiratory systems and childbirth, were considerably above the average of the five years ended with 1885; and excepting diseases of the nervous system and childbirth, they were also, for the most part, higher than in the earlier period 1871–80. In reference to the falling-off in the death rate from diseases of the respiratory system, it should be explained that this has been more than compensated by the increased mortality from phthisis already alluded to.* In England, the death rate from local diseases is, on the average, fully 40 per cent. higher than the death rate from that class of complaints in Victoria.

277. The mortality from diseases of the respiratory system in 1888 was below the average of recent years, but slightly above that of earlier ones. The proportion in 1888 was 201 to every 100,000 persons living, while it was 218 in the five years 1881–5, but only 195 during the ten years 1871–80. The diseases in this group cause, on the average, nearly half as many deaths again as phthisis (which is not included amongst “lung diseases,” being classed as a “constitutional” disease†). The victims are, for the most part, young children and old people, the majority dying in the winter quarter (July to September). In the year under review the actual number of deaths from these causes was 2,131, being equal to over one-eighth of the total mortality; and of these pneumonia caused 689, bronchitis 682, congestion of the lungs 168, and croup 282. Of those who died from these complaints, 922 were under 5 years—more than half of these being under 1 year—and 708 were over 50 years of age. If deaths from phthisis be added to those from diseases of the respiratory system, it will be found that altogether 3,659 deaths in 1888 (or 37 more than in 1887) were from diseases particularly affecting the organs of respiration, which is equal to between one-fourth and one-fifth of the total mortality.

Diseases of
respiratory
system.

* See paragraphs 260 *ante*.

† See paragraph 258 *ante*.

Bronchitis
and pneu-
monia in
various
countries.

278. Bronchitis and pneumonia, with congestion of the lungs, caused 11,477 deaths in the ten years ended with 1880, 7,857 in the five years ended with 1885, 1,777 in 1886, 1,591 in 1887, and 1,539 in 1888, which numbers furnish proportions per 10,000 of the population of 14·40 deaths annually for the first period, of 17·22 annually for the second period, of 18·00 for 1886, 15·60 for 1887, and 14·49 for 1888. From these results it would appear that the complaints referred to are gradually becoming more and more fatal in this colony, the low proportion for the last two years being exceptional; they are, however, according to the following figures, still much less fatal here than in any of the countries named except Prussia, it being assumed that congestion of the lungs is included with bronchitis and pneumonia in the returns of the various countries:—

ANNUAL DEATH RATE FROM BRONCHITIS AND PNEUMONIA IN
VARIOUS COUNTRIES, 1881 TO 1884.*

Per 10,000 persons living.		Per 10,000 persons living.	
Spain (principal towns) ...	53·15	Germany (principal towns) ...	27·87
Italy ...	45·31	Denmark (towns) ...	27·47
Scotland (8 towns) ...	38·06	Belgium (principal towns) ...	27·06
Austria (principal towns) ...	37·95	Ireland ...	26·76
Holland ...	36·32	Switzerland (principal towns) ...	26·69
Scotland ...	34·13	Spain ...	24·12
Belgium ...	32·87	Sweden (principal towns) ...	24·10
England and Wales ...	32·25	Massachusetts ...	21·03
Switzerland ...	31·52	Prussia ...	16·63
Austria ...	28·09		

Deaths in
childbed.

279. The death rate from a given complaint is usually ascertained by comparing the number of deaths from it with the number of persons living, but the death rate of women in childbed is better realized by comparing the number of deaths of parturient women with the total number of births. Such deaths are classified in two ways. If the death is supposed to occur merely from the consequences of child-bearing without specific disease, it is set down as of Childbirth, Class VI., Sub-class 9; but, if it should arise from Puerperal Fever, it is placed under that head, Class I., Sub-class 6. In 1888 the proportion of deaths of child-bearing women to the number of children born was, with the exception of that in 1887, the lowest recorded in the last eight years, and was much below the average of the twenty-five years ended with 1888, as is shown in the following table:—

* See Dr. Raseri's paper, page 193. The complaints referred to are there termed "Bronchite e Polmonite."

DEATHS OF WOMEN IN CHILDBIRTH, 1864 TO 1888.

Year.	Number of Mothers who died of—			Deaths of Mothers to every 10,000 Children born alive.
	Childbirth.	Puerperal Fever (Metria).	Total.	
1864	100	21	121	47 12
1865	99	24	123	47 46
1866	112	26	138	55 18
1867	117	20	137	53 51
1868	110	23	133	48 82
1869	105	18	123	47 23
1870	115	9	124	45 67
1871	90	12	102	37 25
1872	123	16	139	50 80
1873	127	44	171	60 85
1874	142	109	251	93 66
1875	154	83	237	88 70
1876	117	48	165	61 64
1877	131	42	173	66 51
1878	149	49	198	74 49
1879	123	38	161	59 99
1880	111	20	131	50 09
1881	155	78	233	85 84
1882	117	59	176	65 80
1883	115	43	158	57 37
1884	131	72	203	70 36
1885	106	62	168	56 05
1886	122	70	192	62 29
1887	116	58	174	52 66
1888	113	74	187	54 20
Total in twenty-five years	3,000	1,118	4,118	59 74

280. In 1884, the death rate of parturient women showed a sudden increase concurrently with the prevalence of an epidemic of measles, followed by a remarkable decrease in 1885 coincidently with the gradual disappearance of that epidemic. It is a singular fact that at or about the four periods during the last twenty-three years at which epidemics of measles and scarlatina have prevailed in Victoria,* viz., 1866-7, 1874-5, 1881-2 and 1884, the mortality of child-bearing women largely increased. Whether this is only a coincidence, or whether there is any connexion between the two circumstances, is a matter which merits the consideration of the medical faculty. It should be mentioned that the visitation in 1881-2 differed somewhat from the others, as the deaths of child-bearing women did not increase in numbers concurrently with the epidemic, but in the year following that in which it was most fatal.

Increase of
deaths in
childbed
at epidemic
periods.

* See table following paragraph 234 ante.

Deaths in
childbed in
Victoria
and United
Kingdom.

281. The proportion of women dying in childbed during the whole period of twenty-five years was 1 to 167 births, and in 1888 the proportion was 1 to every 185 births. In 1887, the proportion was 1 to every 190 births; in 1886, 1 to every 161 births; in 1885, 1 to every 178 births; and in 1884, it was as high as 1 to every 142 births. All these proportions are much higher than those in England and Wales, where, in the five years ended with 1887, 200 births occurred to each death of a mother.* In Scotland, 1 woman died in childbirth to every 207 births during 1873, and to every 149 births in 1874; and in Ireland, during the ten years, 1869-78, 1 woman died to every 151 births.

Deaths from
childbirth
in Women's
Hospital.

282. In the Midwifery Department of the Melbourne Women's Hospital,† 671‡ women were confined, and 634§ infants were born alive, during the year ended 30th June, 1888. Four deaths of mothers occurred during or shortly after parturition; or 1 death of a mother to every 168 deliveries, or to every 158 births. This is the lowest rate of mortality which has occurred in the institution for a number of years. In 1885-6, 1 death of a mother took place therein to every 34 deliveries, or 32 births; in 1884-5, 1 to every 17 deliveries, or 16 births; in 1883-4, 1 to every 31 deliveries, or 28 births; in 1882-3, 1 to 86 deliveries or 77 births; in 1882 (first six months), 1 to 60 deliveries or 56 births; in 1881, 1 to 29 deliveries or 27 births; in 1880, 1 to 98 deliveries or 89 births; in 1879, 1 to 71 deliveries or 67 births; in 1878, 1 to 92 deliveries or 86 births; in 1877, 1 to 65 deliveries or 61 births; and in 1876, 1 to 68 deliveries or 65 births. Exclusive of the proportion in the year under review, which compares not unfavourably with that of women confined during a series of years outside the institution, these proportions are, on the average, about $2\frac{1}{2}$ times as high as those for the whole colony; but it should be mentioned that, all over the world, maternity hospitals are subject to receive a worse class of cases than the average of those dealt with outside, women not unfrequently being brought in such a state as to render their recovery from the first almost hopeless; therefore, in all such institutions, the death rate of the inmates is higher

* There is reason to believe that the mortality from childbirth and metria in England is much understated, as the sending out of letters of inquiry in 1882—an exceptional proceeding—respecting certain ill-defined causes of death had the effect of increasing the recorded mortality from childbirth and metria 10 per cent. If this correction be applied to the average above stated, the proportion would be one death of a mother to as few as 185 births.—See 45th Annual Report of the Registrar-General of England, page xvii.

† Formerly known as the Lying-in-Hospital.

‡ Including 212 cases occurring outside the hospital at houses provided by the committee, amongst whom 1 death occurred.

§ Including 7 cases of twins.

than that which prevails amongst child-bearing women in the general population. It should be mentioned that the committee of management of this hospital attribute the low rate of mortality in 1887-8 to the fact that antiseptic precautions were more rigorously carried out than they had been in former years.

283. Deaths of lying-in women appear to be more common in Victoria than in any other Australasian colony. It should, however, be mentioned that the fact of a woman dying in childbed is not always at once discoverable from the death registers. Whether from a desire to conceal the fact of their losing patients in this manner, or from inadvertence, medical men frequently enter the cause of death as debility, exhaustion, blood-poisoning, pyæmia, septicæmia, phlebitis, embolism, peritonitis, hæmorrhage, etc., omitting to state that these circumstances were consequent upon child-bearing until specially asked whether such was the case. The causes of death of females at child-bearing ages should be carefully scrutinized, and the entry should be referred back for inquiry in all cases where the death is stated to have occurred from any of the above causes. It is questionable whether in any of the other colonies the scrutiny is as close as it is in Victoria, and hence it is probable that the full extent of the mortality in child-birth occurring is not known. The inaccuracy with which such deaths are often described has recently excited attention in England, where the Registrar-General in 1881 and 1882 caused special letters of inquiry to be sent out respecting doubtful deaths of women at child-bearing ages, with the result that 348 deaths in the former and 428 in the latter year were added to those assigned to puerperal fever and the other incidents of child-birth.* Such a practice has been followed for some years in Victoria, and it is much to be wished that it should be adopted by the other colonies of this group. The rule prescribed, although not always followed, is that whenever childbirth has occurred within one month before death, this fact should be registered with the cause of death. The following table contains a statement of the deaths recorded as having occurred from childbirth and metria in all the Australasian colonies except Western Australia during the fifteen years ended with 1887, and the proportion of such deaths to every 10,000 children born alive in each colony:—

Deaths in
childbed in
Austral-
asian
colonies.

* See 45th Annual Report for the year 1882.

DEATHS FROM CHILDBIRTH AND PUERPERAL FEVER (OR METRIA)
IN AUSTRALASIAN COLONIES, 1873 TO 1887.

Year.	Number of Deaths from Childbirth and Puerperal Fever.					
	Total.	Per 10,000 Children Born Alive.	Total.	Per 10,000 Children Born Alive.	Total.	Per 10,000 Children Born Alive.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
1873 ...	171	60·85	...	...	23	40·21
1874 ...	251	93·66	...	...	33	51·70
1875 ...	237	88·70	149	66·14	37	55·17
1876 ...	165	61·64	186	79·84	43	62·29
1877 ...	173	66·51	113	47·38	53	73·93
1878 ...	198	74·49	103	40·67	46	62·19
1879 ...	161	59·99	90	33·42	38	48·28
1880 ...	131	50·09	127	45·10	42	51·24
1881 ...	233	85·84	117	40·35	70	85·15
1882 ...	176	65·80	118	39·73	49	57·53
1883 ...	158	57·37	114	36·44	42	42·47
1884 ...	203	70·36	137	40·36	67	62·74
1885 ...	168	56·05	127	36·24	69	59·12
1886 ...	192	62·29	191	52·64	71	56·43
1887 ...	174	52·66	173	46·46	62	45·88
Sums & } Means }	2,791	67·09	1,745	46·52	745	56·95
	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 ...	22	30·96	26	85·30	52	46·34
1874 ...	38	49·38	20	64·58	74	57·61
1875 ...	54	72·89	32	103·06	93	64·41
1876 ...	49	59·58	20	63·51	74	45·77
1877 ...	45	52·08	25	77·86	74	43·90
1878 ...	41	44·17	16	45·69	85	47·83
1879 ...	50	50·49	11	30·86	81	44·83
1880 ...	39	38·00	18	48·14	76	39·29
1881 ...	63	58·83	14	35·73	92	49·11
1882 ...	70	64·55	14	34·63	101	53·14
1883 ...	49	43·86	19	44·61	95	49·47
1884 ...	49	41·36	12	26·21	137	69·03
1885 ...	53	44·00	16	34·50	144	73·12
1886 ...	36	32·21	13	28·10	111	57·52
1887 ...	54	49·86	19	40·12	95	49·65
Sums & } Means }	712	48·81	275	50·86	1,384	52·73

NOTE.—In Western Australia 6 deaths of child-bearing women occurred in 1887, or at the rate of 36·7 per 10,000 births.

Low death
rate from
childbirth
in colonies,
1887.

284. The above figures show that, in proportion to the children born alive, the number of deaths of child-bearing women in 1887 was below the average in all the colonies except South Australia. In that colony the rate was higher than it had been in the four previous years.

Deaths from
child-bear-
ing in
various
countries.

285. Comparing the deaths of child-bearing women with every 10,000 of the population, the proportions annually are 2·17 for the decennial period 1871 to 1880, 2·05 for the quinquennial period 1881

to 1885, 1.71 for 1887, and 1.77 for 1888. These and the following figures show Victoria to stand rather high in regard to the mortality of women in childbed as compared with many other countries, and especially so as it would appear that deaths from diseases of pregnancy, as well as from circumstances attendant upon child-bearing, are included in the following list, which they are not in the figures for Victoria :—

ANNUAL DEATH RATE FROM DISEASES OF PREGNANCY AND
CHILD-BEARING IN VARIOUS COUNTRIES, 1881-84.*

Deaths from Pregnancy and Child-bearing per 10,000 persons living.			Deaths from Pregnancy and Child-bearing per 10,000 persons living.		
Spain (principal towns)...	3.77		Massachusetts ...	...	1.80
Spain ...	3.56		Denmark (towns) ...	...	1.76
Belgium ...	2.32		Belgium (principal towns)	...	1.72
Prussia ...	2.20		Ireland ...	...	1.65
Italy ...	2.13		England and Wales ...	...	1.60
Scotland (eight towns) ...	2.10		Holland ...	...	1.43
Switzerland ...	2.06		Sweden ...	...	1.29
Switzerland (principal towns) ...	2.02		Sweden (principal towns)	...	1.27
Scotland ...	1.87		Germany (principal towns)	...	1.23

286. Deaths from external causes, Class VII., in proportion to population, were formerly twice as numerous in Victoria as in England and Wales; but in recent years, as the number of individuals engaged in mining operations has decreased, and greater precautions are taken for the prevention of accidents, the rate in the former has fallen considerably. Over a series of twenty-seven years, the average annual number of violent deaths per 100,000 of the population was 136, but during the ten years 1871-80 it was only 108, and in the subsequent five years it fell to as low as 93. The last-named rate, however, is still higher by nearly a third than the rate prevailing in England and Wales, where it averages only 72. The greater frequency of violent deaths in Victoria than in England appears in all classes of such deaths, those from accidents and suicide being, in proportion to population, about a third more numerous, homicides more numerous by two-thirds, and executions twice as numerous. Violent deaths.

287. The number of violent deaths recorded in Victoria during 1888 was 1,119, of which 937, or 84 per cent., were ascribed to accident; 42, or 4 per cent., to homicide; 139, or 12 per cent., to suicide; and one was due to execution. Deaths from accidents were formerly more numerous than those from any single disease, and Violent deaths, 1888 and previous years.

* See Dr. Raseri's paper, page 193; the complaints referred to are there termed "Malattie di gravidanza, parto e puerperio."

more recently than those from any specific disease except phthisis, diarrhoea, and pneumonia.* Forty-three per cent. of the deaths from accidents in 1888 were due to fractures, 22 per cent. to drowning, and 13 per cent. to burns and scalds. Both homicides and suicides were much above the average of the five years ended with 1885. The following table shows the number of deaths and the exact modes of death under the heads of accident and suicide, also the number of deaths from homicide and execution, during the year 1888 and the five years ended with 1885, the sexes of those who died being distinguished :—

VIOLENT DEATHS.

Causes of Death.	Year 1888.			Five Years : 1881 to 1885.		
	Males.	Females.	Total.	Males.	Females.	Total.
Accidents :—						
Fractures and contusions	356	47	403	1,464	168	1,632
Gunshot wounds ...	20	3	23	} 107	17	124
Cuts, stabs, etc. ...	9	3	12			
Burns and scalds ...	39	81	120	179	255	434
Sunstroke ...	18	8	26	44	26	70
Lightning ...	4	...	4	11	1	12
Poison ...	8	6	14	63	30	93
Snake, insect—bite ...	3	...	3	16	2	18
Drowning ...	167	40	207	754	179	933
Suffocation ...	53	23	76	169	114	283
Others ...	42	7	49	44	19	63
Total ...	719	218	937	2,851	811	3,662
Homicide ...	29	13	42	53	57	110
Suicide :—						
Gunshot wounds ...	24	1	25	67	2	69
Cuts, stabs, etc. ...	23	4	27	61	13	74
Poison ...	17	10	27	45	26	71
Drowning ...	20	5	25	68	27	95
Hanging ...	26	3	29	131	7	138
Otherwise ...	3	3	6	15	1	16
Total ...	113	26	139	387	76	463
Execution ...	1	...	1	8	...	8
Grand Total ...	862	257	1,119	3,299	944	4,243

Violent
deaths in
proportion
to total
deaths.

288. During the five years ended with 1885, 38,213 males and 28,478 females died of specified causes ; and it results from these figures

* See table following paragraph 220 *ante*.

and those in the foregoing table, that, of the males, 1 in every 12 died a violent death; 1 in every 13 died of an accident; 1 in every 721 was a victim to homicide; 1 in every 99 committed suicide; and 1 in every 4,780 was executed. Of the females, 1 in every 30 died a violent death; 1 in every 35 died of an accident; 1 in every 500 died by the hand of another; 1 in every 375 committed suicide; but, happily, not one was executed.

289. Males are much more subject to violent deaths than females. Of those who so died in 1888, 862, or 77 per cent., belonged to the male, and 257, or 23 per cent., to the female sex. In the five years ended with 1885 these proportions were 78 and 22 per cent. respectively.

Violent deaths of males and females.

290. Omitting fractions, it may be roughly stated that, where 1 female dies a violent death in Victoria, 4 males die violent deaths; where 1 female dies of an accident, 4 males die of accidents; where 1 female commits suicide, 5 males do so; but, according to the experience of recent years, more females are murdered than males. Only 1 woman has been executed in the colony since its first settlement; but in the 37½ years since Victoria has been an independent colony as many as 129 males have been executed.

Violent deaths: proportion of males and females.

291. The only violent deaths which habitually affect females more than males are those resulting from burns and scalds. All other circumstances which occasion such deaths, as a rule, bear more hardly upon males than upon females.

Burns and scalds.

292. One hundred and thirty-nine persons took their own lives in 1888, and 132 in the previous year. During the five years ended with 1885 the mean annual number of deaths by suicide was 93.

Suicidal deaths.

293. Hanging is the most common mode by which men commit suicide, drowning and shooting with almost equal frequency the next, cutting or stabbing the next, and taking poison the next. Females most frequently take their lives by drowning or by taking poison, next by stabbing or hanging, but only four times in 131 cases which have occurred during the last eight years by shooting. It may be mentioned that suicide by shooting is much more common now than formerly, the number of cases in the five years ended with 1885 being equal to the number in the preceding ten years.

Modes of suicide in Victoria.

294. The Registrar-General of England in his 46th Report gives the following table, showing the proportion during the ten years

Modes of suicide in England.

ended with 1880, of suicides effected by different methods in England and Wales. With the exception of shooting, the relative frequency of each method follows substantially the same order as that obtaining in Victoria :—

MODES OF COMMITTING SUICIDE IN ENGLAND AND WALES.

Methods.					Number by each Method per 1,000 by all Methods.	
					Males.	Females.
Hanging or strangulation	...	...	...	...	400	268
Drowning	...	...	...	...	165	333
Cut or stab	...	...	...	...	212	149
Poison	...	...	...	...	79	172
Shooting	...	...	...	...	68	2
Jump from height	...	...	...	...	20	36
Railway train	...	...	...	...	24	7
Otherwise	...	...	...	...	32	33
Total	...	...	...	...	1,000	1,000

Suicides of Chinese.

295. Suicide frequently occurs amongst the Chinese. Only two men of this race committed that act in 1887, but six in 1888. Of the 8 referred to, all but three hanged themselves. The total number of Chinese males in the colony is about 12,000 ; so that those who committed suicide during 1887 were in proportion of about 1 in 6,000, and during 1888 about 1 in 2,000. In the general population the proportion of persons committing self-destruction averages only 1 in about 10,000.

Suicides in Australasian colonies.

296. According to the results in the following table, it would appear that, in proportion to population, suicide is more common in Victoria than in any other Australasian colony except Queensland. It should, however, be stated that the death records frequently do not upon the surface show that the death has been suicidal, and close examination, with sometimes further inquiry, is therefore necessary to determine that fact. It is hence likely that the full extent to which suicide prevails in some of the colonies is not ascertained. The following are the suicides and their proportion to every 100,000 of the population during the fifteen years ended with 1887 recorded in all the Australasian colonies except Western Australia :—

DEATHS FROM SUICIDE IN AUSTRALASIAN COLONIES,
1873 TO 1887.

Year.	Number of Deaths from Suicide.					
	Total.	Per 100,000 Persons Living.	Total.	Per 100,000 Persons Living.	Total.	Per 100,000 Persons Living.
	VICTORIA.		NEW SOUTH WALES.		QUEENSLAND.	
1873 ...	97	12·7	41	7·5	22	15·7
1874 ...	97	12·5	64	11·2	10	6·4
1875 ...	91	11·6	55	9·4	23	13·3
1876 ...	100	12·6	61	10·1	24	13·0
1877 ...	92	11·4	66	10·5	27	13·8
1878 ...	87	10·6	48	7·3	29	14·0
1879 ...	108	13·0	62	9·0	40	18·7
1880 ...	118	13·9	68	9·4	22	9·9
1881 ...	102	11·7	83	10·9	21	9·5
1882 ...	83	9·3	55	7·0	40	16·8
1883 ...	103	11·3	54	6·5	37	13·8
1884 ...	86	9·2	81	9·2	45	15·3
1885 ...	89	9·3	95	10·2	36	11·7
1886 ...	101	10·2	95	9·7	44	13·2
1887 ...	132	12·9	121	11·8	63	17·8
Means ...	99	11·5	70	9·3	32	13·5

	SOUTH AUSTRALIA.		TASMANIA.		NEW ZEALAND.	
1873 ...	10	5·1	6	5·8	20	7·0
1874 ...	22	10·9	6	5·8	20	6·3
1875 ...	24	11·5	6	5·8	29	8·1
1876 ...	15	6·9	6	5·7	42	10·8
1877 ...	17	7·3	10	9·4	32	7·8
1878 ...	18	7·4	8	7·4	37	8·8
1879 ...	18	7·1	5	4·5	42	9·4
1880 ...	25	9·5	8	7·0	38	8·0
1881 ...	34	11·8	6	5·1	42	8·5
1882 ...	18	6·3	3	2·5	53	10·4
1883 ...	31	10·4	5	4·0	55	10·4
1884 ...	31	10·0	7	5·5	57	10·4
1885 ...	32	10·2	5	3·8	54	9·5
1886 ...	31	9·9	3	2·2	66	11·3
1887 ...	29	9·2	6	4·3	52	8·7
Means ...	24	8·9	6	5·3	43	9·0

297. It will be observed that, according to the records, the suicides which take place annually in Victoria and Queensland are almost invariably above 1 per 10,000 persons living, but those which take place in the other colonies are generally below that proportion, which indeed was not once reached in Tasmania, six times in New South

Proportion
of suicides
in different
colonies.

Wales, five times in New Zealand, and six times in South Australia, during the fifteen years named in the table. The rate in Tasmania appears to be much lower than in any of the other colonies.

Suicides in
various
countries.

298. By the following figures, which have been derived from various sources, it appears that suicide is more common in eight countries out of Australasia than in Queensland, and in ten than in Victoria, New South Wales, New Zealand, or South Australia, whilst there are only eight out of the twenty-two countries named in which suicide is less common than it is in Tasmania:—

DEATHS FROM SUICIDE IN DIFFERENT COUNTRIES.

Deaths from Suicide in each year per 100,000 Persons Living.			Deaths from Suicide in each year per 100,000 Persons Living.		
Saxony	...	31·1	South Australia	...	8·9
Denmark	...	25·8	Sweden	...	8·1
Schleswig-Holstein	...	24·0	Norway	...	7·5
Austria	...	21·2	Belgium	...	6·9
Switzerland	...	20·2	England and Wales	...	6·9
France	...	15·7	Tasmania	...	5·3
German Empire	...	14·3	Hungary	...	5·2
Hanover	...	14·0	Scotland	...	4·0
Queensland	...	13·5	Italy	...	3·7
Prussia	...	13·3	Netherlands	...	3·6
Victoria	...	11·5	United States	...	3·5
New South Wales	...	9·3	Russia	...	2·9
Bavaria	...	9·1	Ireland	...	1·7
New Zealand	...	9·0	Spain	...	1·4

Suicide
more des-
tructive
than war.

299. It has been pointed out that suicide is a more terrible destroyer of human life than war, for whilst during the first fifty years of the Queen's reign war occasioned 52,000 deaths of subjects of the United Kingdom, and 316,000 deaths of subjects of France, Germany, and Austria, suicide claimed 77,000 victims in the first-named country, and 610,000 victims in the other three countries named.*

Violent
deaths in
Austral-
asian
colonies.

300. According to the following figures, violent deaths during the six years ended with 1887 were less common in Victoria than in any other of the Australasian colonies, except South Australia and Tasmania:—

* See Mulhall's *Fifty Years of National Progress*, page 11.

VIOLENT DEATHS IN AUSTRALASIAN COLONIES, 1882 TO 1887.

Colony.	Year.	Number of Violent Deaths.	
		Total.	Per 10,000 Persons Living.
Victoria ...	1882	841	9·44
	1883	908	9·97
	1884	799	8·56
	1885	846	8·83
	1886	942	9·54
	1887	1,023	10·03
	Mean of 6 years	893	9·40
New South Wales...	1882	904	11·37
	1883	850	10·19
	1884	990	11·24
	1885	1,106	11·88
	1886	1,083	11·05
	1887	1,148	11·23
	Mean of 6 years	1,013	11·17
Queensland ...	1882	439	18·48
	1883	396	14·78
	1884	509	17·27
	1885	492	15·93
	1886	496	14·92
	1887	599	16·88
	Mean of 6 years	488	16·38
South Australia ...	1882	210	7·24
	1883	202	6·76
	1884	239	7·74
	1885	212	6·77
	1886	272	8·69
	1887	229	7·31
	Mean of 6 years	227	7·42
Western Australia...	1882	53	17·44
	1883	59	18·89
	1884	51	15·78
	1885	45	13·21
	1886	67	18·02
	1887	57	13·67
	Mean of 6 years	55	16·17
Tasmania ...	1882	88	7·29
	1883	106	8·53
	1884	90	7·01
	1885	92	6·97
	1886	94	6·94
	1887	112	8·01
	Mean of 6 years	97	7·45

VIOLENT DEATHS IN AUSTRALASIAN COLONIES,
1882 TO 1887—continued.

Colony.	Year.	Number of Violent Deaths.	
		Total.	Per 10,000 Persons Living.
New Zealand 	1882	505	9·92
	1883	494	9·33
	1884	548	9·98
	1885	517	9·13
	1886	571	9·81
	1887	555	9·31
	Mean of 6 years	532	9·57

Death rate
from
violence in
various
countries.

301. In the following table, the Australasian colonies and certain European countries are arranged in order in accordance with the proportion of deaths from violence to the population of each country which have occurred during a series of years; the proportion of such deaths from accident or negligence, homicide, and suicide being also shown. The figures relating to European countries have been partly derived from the 40th Report of the Registrar-General of England:—

DEATH RATE FROM VIOLENCE IN VARIOUS COUNTRIES.

Countries.	Proportion per 100,000 Living of Deaths from—			
	Violence of all kinds.	Accident or Negligence.	Homicide.*	Suicide.
Queensland 	163·8	141·1	6·4	13·5
Western Australia ...	161·7	133·9	12·1	9·2
New South Wales ...	111·7	94·9	3·1	9·3
New Zealand 	95·7	84·0	1·4	9·0
Victoria 	94·0	80·8	2·7	11·5
Switzerland 	92·4	68·9	3·9	20·2
United Kingdom†	77·5	69·7	1·6	6·2
England and Wales ...	75·7	66·7	1·7	6·9
Tasmania 	74·5	68·5	1·5	5·3
South Australia ...	74·2	63·4	1·4	8·9
Norway 	72·4	64·1	1·3	7·5
Scotland 	72·0	68·2	·1	4·0
Finland 	62·6	55·7	3·5	3·4
Sweden 	61·9	50·7	2·0	8·1
Russia 	61·6	46·1	2·1	13·3
Bavaria 	51·9	37·7	3·9	9·1
Belgium 	48·3	38·5	1·6	6·9
Austria 	47·1	...	...	21·2
Ireland 	39·1	35·3	1·7	1·7
Italy 	24·0	14·9	5·4	3·7

NOTE.—In some instances the proportions of deaths from accident, homicide, and suicide are not for the same period as those from violence of all kinds.

* Not including executions.

† Including the Shipping.

302. It will be seen that the list is headed by five Australasian colonies, in all of which the proportion of violent deaths is higher than in any of the European countries named. Victoria, however, stands below the other four colonies referred to, and immediately above Switzerland, which, with the United Kingdom and England and Wales, stands immediately above Tasmania and South Australia. According to the figures, the country in which the proportion of accidents is greatest is Queensland, that in which the proportion of homicides is greatest is Western Australia, and that in which the proportion of suicides is greatest is Austria.

303. The following table gives a statement of the number of cases of death and injury from accidents on the Government lines of railway during the twenty-nine and a half years ended with 30th June, 1888, embracing the whole period of the existence of railways in Victoria:—

DEATHS FROM RAILWAY ACCIDENTS, 1859 TO 1887-8.

Year.	Total Number.	Passengers.			Servants of the Railway Department or of Contractors.			Others.		
		From causes beyond their own control.	From their own miscon- duct or want of caution.	Total.	From causes beyond their own control.	From their own miscon- duct or want of caution.	Total.	At crossings.	Trespassers.	Miscellaneous.
1859 to 1868	37	...	...	...	3	19	22	1	14	...
1869	4	...	...	...	...	2	2	...	1	1
1870	2	...	...	...	...	1	1	...	1	...
1871	6	...	...	...	...	2	2	...	2	2
1872	3	...	...	...	...	...	...	...	3	...
1873	...	...	...	...	...	...	...	...	...	...
1874	10	...	...	...	4	...	4	1	4	1
1875	11	...	...	...	...	6	6	...	4	1
1876	23	...	...	...	3	10	13	2	6	2
1877	22	...	1	1	3	10	13	...	8	...
1878	16	...	...	...	...	7	7	2	6	1
1879	21	...	...	...	1	8	9	2	9	1
1880	18	...	...	...	...	7	7	3	6	2
1881	34	4	4	8	...	14	14	3	8	1
1882	38	1	1	2	...	22	22	3	9	2
1883	32	...	5	5	...	10	10	5	10	2
1884 (six months)	10	1	...	1	4	2	6	...	3	...
1884-5	36	...	1	1	...	12	12	7	14	2
1885-6	38	...	1	1	1	15	16	5	14	2
1886-7*	50	4	...	4	2	14	16	5	25	...
1887-8	45	...	2	2	...	22	22	8	13	...
Total killed	456	10	15	25	21	183	204	47	160	20

* The high mortality in 1886-7 was chiefly due to the Windsor railway accident. So far as the numbers killed and injured are concerned, this is the worst railway accident which has occurred in Victoria.

PERSONS INJURED BY RAILWAY ACCIDENTS, 1859 TO 1887-8.

Year.	Total Number.	Passengers.			Servants of the Railway Department or of Contractors.			Others.		
		From causes beyond their own control.	From their own miscon- duct or want of caution.	Total.	From causes beyond their own control.	From their own miscon- duct or want of caution.	Total.	At crossings.	Trespassers.	Miscellaneous.
1859 to 1868 ...	84	22	2	24	5	45	50	1	7	2
1869 ...	...	...	...	...	...	...	...	...	...	...
1870 ...	4	...	...	...	4	...	4	...	...	...
1871 ...	3	...	...	...	...	1	1	...	1	1
1872 ...	32	28	2	30	1	1	2	...	...	...
1873 ...	1	...	...	...	...	1	1	...	...	...
1874 ...	1	...	...	...	...	1	1	...	...	...
1875 ...	8	...	...	...	6	1	7	...	1	...
1876 ...	27	1	1	2	4	15	19	...	5	1
1877 ...	49	36	...	36	3	5	8	1	2	2
1878 ...	40	22	3	25	6	5	11	...	1	3
1879 ...	45	7	2	9	11	20	31	3	1	1
1880 ...	20	5	...	5	1	7	8	2	3	2
1881 ...	64	46	4	50	1	10	11	...	2	1
1882 ...	261	210	5	215	13	25	38	1	2	5
1883 ...	101	67	8	75	7	12	19	2	1	4
1884 (six months) ...	90	44	9	53	10	21	31	2	1	3
1884-5 ...	116	13	23	36	10	46	56	5	9	10
1885-6 ...	191	3	33	36	17	101	118	6	4	27
1886-7* ...	358	266	24	290	16	43	59	3	3	3
1887-8 ...	169	18	34	52	15	84	99	2	10	6
Total injured ...	1664	788	150	938	130	444	574	28	53	71

Railway
passengers
and ser-
vants killed
and injured

304. It will be observed that, in the whole period of twenty-nine and a half years, 456 persons were killed and 1,664 were injured on the State lines of railway, and that, exclusive of trespassers, persons crossing the lines, etc., 198 of the former and 594 of the latter met their death or injury in consequence of their own misconduct or want of caution. Of the persons killed throughout the period, 25 were passengers, and as many as 204 railway or contractors' servants; 15 of the former, and 183 of the latter, having suffered in consequence of their own carelessness. The passengers injured numbered 938, and the railway servants 574; as many as 444 of the latter, but only 150 of the former, suffered from their own action. At crossings, 47 persons were killed, and 28 injured. As many as 160 trespassers were killed; these no doubt included persons who committed suicide by placing themselves in the way of trains. The trespassers injured

* See footnote (*) on previous page.

have numbered 53, half of whom received their injuries during the last four years.

305. In the fifteen years ended with 1888, embracing the whole Mining accidents. period during which the Regulation and Inspection of Mines and Machinery Statutes* have been in operation, 821 persons lost their lives, and 1,848 persons were injured, from accidents connected with mining operations. The following were the numbers in each year and their proportion to the number of miners at work:—

DEATHS AND INJURIES FROM MINING ACCIDENTS, 1874 TO 1888.

Year.	Average Number of Miners at work.	Number of Persons—			Numbers per 1,000 Miners at work—		
		Killed.	Injured.	Total.	Killed.	Injured.	Total.
1874	46,512	90	245	335	1.93	5.27	7.20
1875	42,058	83	217	300	1.97	5.16	7.13
1876	41,531	55	170	225	1.32	4.10	5.42
1877	38,860	64	154	218	1.65	3.96	5.61
1878	37,212	40	106	146	1.07	2.85	3.92
1879	37,195	48	112	160	1.29	3.01	4.30
1880	38,076	50	89	139	1.31	2.34	3.65
1881	38,436	72	108	180	1.87	2.81	4.68
1882	37,446	71	130	201	1.90	3.47	5.37
1883	33,927	59	128	187	1.74	3.77	5.51
1884	29,182	41	106	147	1.40	3.63	5.03
1885	27,033	40	67	107	1.48	2.48	3.96
1886	25,361	44	68	112	1.73	2.68	4.41
1887	25,511	28	72	100	1.09	2.82	3.91
1888	25,142	36	76	112	1.43	3.02	4.45
Means ...	34,892	55	123	178	1.56	3.53	5.09

306. In 1888, fatal mining accidents numbered 8 more than in the Mining accidents, 1888. previous year, but in proportion to the number of miners at work, were below the average. In comparison with earlier years, the persons killed and injured in and in connexion with mines have much diminished both in numbers and in proportion to the miners at work.

307. According to the mean of the fifteen years to which reference is made, 1 miner in every 641 loses his life annually. In 1888 the proportion was as low as 1 in 700. These proportions contrast Mining accidents in Victoria and England. favourably with the proportion of fatal accidents in the metalliferous mines of Great Britain and Ireland, where, according to the report of Her Majesty's Inspectors of Mines for 1883, 1 person in every 584 employed in and about mines lost his life by accident during the year, and 1 in every 607 during the ten years 1874 to 1883. This is

* 37 Vict. No. 480, 41 Vict. No. 583, 45 Vict. No. 719, and 47 Vict. No. 783.

exclusive of coal mines, in respect to which the proportion of fatal accidents is much higher. Dr. Raseri says that in Italy, during the six years 1879 to 1884, 1 miner in 450 lost his life annually by accident.

Causes of
mining
accidents.

308. It appears by the following table that, in the fifteen years named, 1,316, or 49 per cent., of the mining accidents in Victoria were caused by the fall of earth or materials; 511, or 19 per cent., by falling down shafts, etc., and cage accidents; 324, or 12 per cent., by explosions, principally of blasting charges; and the balance, or 20 per cent., by timber and truck accidents, machinery in motion, foul air, flooding, and undescribed casualties:—

CAUSES OF MINING ACCIDENTS, 1874 TO 1888.

Nature of Accident.	Number of Persons—		
	Killed.	Injured.	Total.
Fall of earth or rock underground	327	607	934
" " on surface	106	76	182
" materials down shafts, passes, etc.	43	155	198
" " winzes, etc.	2	...	2
Falling down shafts	118	154	272
" " winzes, shoots, etc.	15	71	86
Cage accidents	48	105	153
Timber accidents	15	22	37
Truck accidents	5	42	47
Machinery in motion	19	81	100
Explosion of charges of gunpowder	23	135	158
" " guncotton	1	10	11
" " nitro-glycerine compounds	26	63	89
" stored explosives	7	28	35
" boilers	2	6	8
" fire damp	1	22	23
Foul air	11	1	12
Flooding of mines	23	...	23
Undescribed	29	270	299
Total	821	1,848	2,669

Ill-defined
and un-
specified
causes of
death.

309. One effect of the new classification of diseases is to remove from the list of complaints, and to place under the head of "Ill-defined and unspecified causes" instead, a number of indefinite causes of death, which, although constantly appearing in medical certificates, are almost worthless for purposes of statistical investigation. Prominent among these are atrophy and debility, dropsy, tumour, mortification, abscess, hæmorrhage, etc. It is obviously desirable that as few entries as possible should be made under this head, and it may be hoped that medical men will, as far as possible, avoid such terms in future when

certifying to the cause of death, and that, wherever practicable, the name of the primary complaint may be given, rather than that of some affection which is merely a result or symptom thereof. In the year under review there were no fewer than 1,353 deaths from ill-defined or unspecified causes, or about 8 per cent. of the deaths from all causes, as compared with an identical proportion in 1887 and 1886, $7\frac{1}{2}$ per cent. in the five years ended with 1885, and 7 per cent. in the ten years ended with 1880. The great majority of these—viz., 1,189 in 1888—were returned as from atrophy and debility; whilst 24 were set down to tumours, 17 to dropsy, 21 to abscess, 32 to other ill-defined causes, and 70 were altogether unspecified.

310. The mortality under the head of atrophy and debility is almost entirely confined to infants and young children—thus, of the 1,189 deaths set down thereto in 1888, 1,084 were under 5 years, 970 were under 1 year, 274 were under 1 month, of age. It is probable that a large number of these deaths might have been returned more definitely if sufficient pains had been taken. The following are the numbers of both sexes recorded as having died from atrophy and debility in each of the twenty-two years ended with 1888:—

Atrophy and
debility in
Victoria.

DEATHS FROM ATROPHY AND DEBILITY, 1867 TO 1888.

Year.	Males.	Females.	Total.
1867	399	347	746
1868	337	328	665
1869	386	337	723
1870	422	368	790
1871	368	311	679
1872	354	338	692
1873	378	336	714
1874	402	337	739
1875	413	349	762
1876	344	305	649
1877	344	304	648
1878	389	311	700
1879	407	304	711
1880	369	324	693
1881	392	345	737
1882	493	442	935
1883	412	387	799
1884	488	365	853
1885	541	414	955
1886	577	472	1,049
1887	659	503	1,162
1888	639	550	1,189
Annual mean 1867 to 1888 ...	433	367	800

Sex of those
who died
of atrophy,
etc.

311. Notwithstanding the proportions of the sexes of persons at ages to be affected by atrophy and debility were about equal, it will be observed that in every one of the years more males died than females. During the whole period, females died of these complaints in the proportion of 85 to every 100 males.

Atrophy and
debility in
Austral-
asian
colonies.

312. The practice of returning atrophy and debility as causes of death appears to be no less common in the other Australasian colonies than in Victoria, the mortality (generally of infants or young children) from those circumstances which medical men seem to find a difficulty in giving a more definite name to, being apparently more common generally in the warmer than in the cooler colonies. The following are the figures for the six years ended with 1887 :—

DEATHS FROM ATROPHY AND DEBILITY IN AUSTRALASIAN COLONIES,
1882 TO 1887.

Colony.	Year.	Number of Deaths from Atrophy and Debility.	
		Total.	Per 10,000 Persons Living.
Victoria	1882	935	10·49
	1883	799	8·77
	1884	853	9·13
	1885	955	9·96
	1886	1,049	10·63
	1887	1,162	11·40
	Mean of 6 years	959	10·06
New South Wales ...	1882	776	9·76
	1883	832	9·97
	1884	975	11·07
	1885	1,059	11·38
	1886	971	9·91
	1887	756	7·39
	Mean of 6 years	894	9·91
Queensland ...	1882	299	12·58
	1883	344	12·84
	1884	438	14·86
	1885	402	13·02
	1886	297	8·93
	1887	114	3·21
	Mean of 6 years	318	10·91

DEATHS FROM ATROPHY AND DEBILITY IN AUSTRALASIAN COLONIES,
1882 TO 1887—*continued*.

Colony.	Year.	Number of Deaths from Atrophy and Debility.	
		Total.	Per 10,000 Persons Living.
South Australia ...	1882	337	11·62
	1883	353	11·81
	1884	380	... 12·31
	1885	307	... 9·81
	1886	315	10·06
	1887	264	8·42
	Mean of 6 years	326	10·67
Western Australia ...	1882	30	9·87
	1883	19	6·08
	1884	35	10·83
	1885	48	14·09
	1886	47	12·64
	1887	63	15·11
	Mean of 6 years	39	11·44
Tasmania ...	1882	112	9·28
	1883	124	9·98
	1884	126	9·81
	1885	124	9·38
	1886	115	8·49
	1887	148	10·58
	Mean of 6 years	125	9·88
New Zealand ...	1882	334	6·56
	1883	269	5·08
	1884	304	5·54
	1885	294	5·19
	1886	318	5·46
	1887	271	4·54
	Mean of 6 years	298	5·39

313. The number of deaths of persons over 80 years of age, and their exact ages at death, have been already quoted for the year 1888 and the two preceding periods of six and eleven years respectively.* The following table shows the causes of death of these persons :—

Causes of death of octogenarians.

* See table following paragraph 212 *ante*.

CAUSES OF DEATH OF OCTOGENARIANS, 1871 TO 1888.

Causes of Death.	Year 1888.		Six Years, 1882-87.		Eleven Years ended with 1881.	
	Males.	Females.	Males.	Females.	Males.	Females.
Influenza, Coryza, Catarrh ...	...	...	5	2	5	11
Diphtheria ...	...	...	1	...	...	...
Typhoid Fever, etc. ...	...	1	6	2	3	2
Cholera ...	...	1	...	2	6	1
Dysentery and Diarrhœa ...	4	6	56	43	51	36
Venereal Diseases ...	...	...	2	...	4	...
Erysipelas ...	...	...	6	2	3	7
Hydatids ...	...	...	...	...	1	...
Privation ...	...	...	2	...	3	...
Scurvy ...	...	...	...	...	1	...
Intemperance ...	...	...	...	...	2	1
Rheumatism ...	1	3	4	7	7	4
Gout ...	1	...	3	1	2	...
Cancer ...	5	7	38	18	35	13
Tabes Mesenterica ...	...	...	1	...	...	...
Phthisis ...	4	...	3	3	3	3
Anæmia, Chlorosis, Leucocy- thæmia	1	1	...	...	...	...
Diabetes Mellitus ...	...	...	1	...	...	...
Old Age ...	181	131	777	626	631	538
Brain Diseases, etc. ...	33	27	132	94	136	103
Ear and Nose Diseases ...	...	...	...	3	...	...
Heart Diseases, etc. ...	32	25	107	68	66	46
Lung Diseases, etc. ...	31	23	230	160	183	116
Quinsy ...	...	...	...	...	...	1
Stomach Diseases, etc. ...	18	5	53	33	37	21
Kidney Diseases, etc. ...	17	1	54	10	47	1
Gennetic Diseases ...	...	...	1	1	...	1
Bone Diseases ...	...	...	1	...	...	...
Carbuncle, Boil ...	...	...	...	1	3	2
Skin Diseases, etc. ...	1	...	...	...	4	2
Accidents ...	9	7	29	23	22	18
Suicide ...	2	...	1	2	4	...
Dropsy ...	...	...	8	9	20	18
Mortification ...	...	...	4	2	9	3
Tumour ...	...	...	3	1	...	3
Abscess, etc. ...	1	...	...	...	1	...
Unspecified Causes ...	3	...	4	3	2	...
Total ...	344	238	1,532	1,116	1,291	951

Complaints
most fatal
to octoge-
narians—
1871-88.

314. It will be noticed that during the eighteen years referred to, in the case of more than half of both the males and females, no complaint was set down except old age. Little is to be learnt from such a vague definition, and it is much to be wished that medical men would endeavour to describe the causes of death with more precision. Of the remainder, over two-sevenths of both sexes died of diseases of

the organs of respiration, chiefly pneumonia and bronchitis, and about one-fifth died of affections of the brain and nerves.

315. Elaborate tables showing the occupations at death of males at various ages in Melbourne, in the extra-metropolitan towns, and in the extra-urban districts, were published in the *Statistical Register of Victoria* for 1883, and statements based upon these have been given in former issues of the *Victorian Year-Book*.^{*} The following is a summary of the proportions of adult males of each class of occupations dying annually in the three years embracing the census year (1881), and the year immediately succeeding and following it, the groups being arranged according to the order of fatality:—

OCCUPATIONS OF ADULT MALES AT DEATH IN ORDER OF FATALITY.

				Annual Deaths of Males over 20 per 1,000 Living.
1.	Engaged in industrial pursuits	...	...	21·89
2.	„ entertaining and serving	...	...	20·42
3.	„ commercial pursuits	...	...	17·62
4.	„ professional pursuits	...	...	16·51
5.	„ food and drinks	...	...	15·53
6.	„ books and literature	...	...	12·48
7.	„ on land and with animals	...	...	9·96

316. As bearing upon the mortality, it is important to consider whether the number of medical men is sufficient to minister to the health of the population. At the census of 1881, 454 legally qualified medical practitioners were returned, which gives 1 to every 1,900 persons, or to every 194 square miles. The first of these proportions compares favourably with that in most other countries, the only ones known to have a higher proportion being England and Wales, Italy, and Switzerland. In regard to the second proportion, in consequence of Victoria being much more thinly peopled than any of the countries of the old world, it is naturally low; lower, in fact, than in any other country respecting which the information is at hand, except Sweden and Norway. These results are shown in the following table, in which

^{*} See *Statistical Register*, 1883, page 278; also, *Victorian Year-Book*, 1883-4, paragraph 619; *ibid.*, 1884-5, paragraph 669; *ibid.*, 1885-6, paragraph 684 *et seq.*

the countries are arranged in order according to the proportion of medical men to the population and to the area of each country:—

MEDICAL MEN IN PROPORTION TO POPULATION AND AREA IN
VARIOUS COUNTRIES.

Countries.	Year.	Medical Men per 100,000 Persons Living.	Countries.	Square Miles to a Medical Man.
Switzerland ...	1880	75	England and Wales	3·9
Italy ...	1885	60	Belgium ...	4·7
England and Wales ...	1881	58	Italy ...	6·2
Victoria ...	1881	53	Holland ...	6·9
Scotland ...	1881	50	Switzerland ...	7·3
Ireland ...	1881	48	Ireland ...	13·2
Holland ...	1884	43	France ...	13·9
Belgium ...	1884	42	Germany ...	15·1
France ...	1883	39	Austria ...	15·8
Germany ...	1876	32	Scotland ...	15·9
Austria ...	1884	32	Hungary ...	33·6
Norway ...	1882	32	Spain ...	37·1
Spain ...	1877	31	Portugal ...	43·4
Hungary ...	1876	24	Russia in Europe ...	148·4
Portugal ...	1880	18	Victoria ...	193·6
Russia in Europe ...	1882	16	Norway ...	205·0
Sweden ...	1883	13	Sweden ...	294·9

NOTE.—The figures, except those relating to Victoria, have been taken (with some corrections) from a table given by Dr. Raseri. The area per medical man is there stated in square kilometres, which have been converted into square miles on the assumption that one of the former is equal to 1·86 of one of the latter.

Sickness and
death in
general
hospitals.

317. There are 38 general hospitals in Victoria, 9 of which are also benevolent asylums. The total number of cases of sickness treated in these institutions during the year ended 30th June, 1888, was 16,426, and the number of deaths was 1,837. In the previous twelve months the cases of sickness treated numbered 16,056, and the deaths 1,780. There was thus 1 death to every 8·9 cases of sickness treated in hospitals during the year 1888, as against 1 death to every 9·0 cases of sickness treated therein during the previous year. The following table gives a list of the various hospitals throughout the colony, also a statement of the number of cases treated, the number of deaths which occurred in the year ended 30th June, 1888, and the proportion of deaths to cases in each hospital during that and the previous year:—

SICKNESS AND MORTALITY IN GENERAL HOSPITALS.

Name of Hospital.	Year ended 30th June, 1888.			Percentage of Mortality to Cases treated, Year ended 30th June, 1887.
	Number of Cases treated.	Number of Deaths.	Percentage of Mortality to Cases treated.	
Alexandra	56	3	5·36	14·29
Amherst	275	15	5·45	7·53
Ararat*	393	32	8·14	10·08
Ballarat	1,071	102	9·52	13·59
Beechworth	483	55	11·39	10·67
Belfast* (Port Fairy) ...	49	7	14·29	12·96
Bendigo	1,317	142	10·78	11·15
Castlemaine	472	46	9·75	10·54
Clunes	119	7	5·88	10·39
Colac	66	6	9·09	15·15
Creswick	233	14	6·01	4·43
Daylesford*	211	27	12·80	14·37
Dunolly	330	31	9·39	8·16
Echuca	191	10	5·24	11·54
Geelong*	923	89	9·64	8·16
Hamilton*	300	21	7·00	9·54
Heathcote	91	8	8·79	13·75
Horsham	249	19	7·63	6·51
Inglewood	528	45	8·52	8·58
Kilmore	148	14	9·46	5·26
Kyneton	436	28	6·42	6·86
Maldon*	70	9	12·86	7·69
Mansfield	116	1	·86	5·19
Maryborough	439	37	8·43	6·50
Melbourne	3,824	683	17·86	15·02
Melbourne (Alfred) ...	1,494	165	11·04	10·94
Melbourne (Austin)† ...	119	33	27·73	37·12
Melbourne (Homœopathic)	567	51	8·99	7·89
Mooroopna	389	30	7·71	10·47
Nhill	83	8	9·64	7·79
Pleasant Creek (Stawell)*	206	16	7·77	9·80
Portland*	26	1	3·85	2·86
Sale	322	26	8·07	10·78
St. Arnaud	254	16	6·30	4·76
Swan Hill	63	5	7·94	6·58
Wangaratta	240	14	5·83	11·47
Warrnambool*	162	16	9·88	10·17
Wood's Point	111	5	4·50	4·50
Total	16,426	1,837	11·18	11·09

318. In proportion to the cases treated in 1887-8, the greatest mortality occurred in the Austin (Melbourne),† Melbourne, and Belfast Hospitals; and the lowest in the Mansfield, Portland, and Wood's Point Hospitals. In the previous year the rate of mortality was highest in the Austin (Melbourne),† Colac, Melbourne, Daylesford

Highest and lowest death rates.

* These institutions are also Benevolent Asylums.

† For incurables.

and Alexandra Hospitals; and the least in the Portland, Creswick, Wood's Point, St. Arnaud, Mansfield, and Kilmore Hospitals.

Proportion
of deaths in
hospitals in
various
countries.

319. The following figures, calculated from numbers given in Dr. Raseri's paper,* show the proportions of deaths to inmates of hospitals in various countries; those for Victoria during the six years ended with 1885 being added:—

PROPORTIONS OF DEATHS TO INMATES OF HOSPITALS IN
VARIOUS COUNTRIES.

						Per cent.
Victoria	...	...	...	...	1880-85	11·85
England and Wales	...	...	...	...	1884	11·11
Austria	...	...	...	...	1883	10·43
Italy	...	...	...	...	1885	10·22
Saxony	...	...	...	...	1882	9·40
Norway	...	...	...	...	1883	9·36
France	...	...	...	...	1883	9·14
Portugal	...	...	...	...	1884	9·02
Hungary	...	...	...	...	1882	8·68
Prussia	...	...	...	...	1882	8·24
German Empire	...	...	...	...	1882	7·18
Sweden	...	...	...	...	1883	6·23
Baden	...	...	...	...	1882	4·86
Bavaria	...	...	...	...	1882	3·86
Württemberg	...	...	...	...	1882	3·49

Deaths in
Victorian
and other
hospitals.

320. The rate of mortality in hospitals would appear by the figures to be higher in Victoria than in any of the other countries named. In the absence of information it is impossible to say whether the cases treated in the hospitals of this colony may not be of a worse class than those in the other countries, or whether hospitals for special complaints—ophthalmic, maternity, etc., where the mortality would naturally not be so great as in general hospitals—may not be included with the latter in the returns of some of the countries.

Sickness and
deaths in
Women's
Infirmary
Depart-
ment.

321. The patients treated in the Infirmary Department† of the Women's Hospital numbered 411 during the year 1886-7, and 267 in 1887-8. The deaths in the same institution numbered 15 in the former, and 16 in the latter year. Therefore, 1 patient in 27 died in 1886-7, and 1 in 17 in 1887-8.

Deaths of
mothers in
Women's
Midwifery
Depart-
ment.

322. In the Midwifery Department† of the Women's Hospital, Melbourne, 615 women were confined in 1886-7, and 671 in 1887-8.‡ Twenty-two died in the former period, but only 4, that being the

* Page 195.

† The Midwifery and the Infirmary Department of the "Women's Hospital" were formerly known under the names of the "Lying-in Hospital" and the "Hospital for Diseases of Women and Children" respectively.

‡ Including women accouched outside the hospital by midwives connected with the institution, who numbered 125 in 1886-7, and 212 in 1887-8.

lowest proportion on record, in the latter. Thus, 1 woman in 28 died in 1886-7, and 1 woman in 168 in 1887-8. From the founding of the institution to the end of June, 1888, 13,721 women were accouched therein,* of whom 247 died, which is equivalent to 1 death to every 56 confinements.†

323. The infants born alive in the Women's Hospital numbered 571 in the year 1886-7, and 634 during the year 1887-8, and of these 22 in the former, and 20 in the latter year died before being taken from the institution; thus 1 infant in 26 died in the former, and 1 in every 32 in the latter year.‡

Deaths of
infants in
Women's
Hospital.

324. In the Melbourne Hospital for Sick Children 544 cases were treated, and 37 deaths occurred, in the year 1886-7; 652 cases were treated, and 43 deaths occurred, during the year 1887-8. These numbers furnish proportions of 1 death to every 15 patients in both years.

Sickness and
deaths in
Children's
Hospital.

325. Cases of sickness in benevolent asylums (exclusive of Melbourne Immigrants' Home) numbered 2,590 in 1886-7, and 2,276 in the year 1887-8; deaths numbered 211 and 251. The deaths were thus to the cases treated in the proportion of 1 to every 12 in 1886-7, and of 1 to 9 in 1887-8.

Sickness and
deaths in
benevolent
asylums.

326. In the Melbourne Immigrants' Home the cases of sickness in the year 1886-7 amounted to 659, and the deaths to 133, or 1 death to every 5 cases of sickness. In the year 1887-8 the cases of sickness in this institution numbered 409, and the deaths 93, or 1 death to every 4 cases of sickness.

Sickness
and deaths
in Immi-
grants'
Home.

327. In 1886-7 the cases of sickness in orphan asylums numbered 133, and the deaths 10. In the year ended 30th June, 1887-8, these numbers were 128 and 5 respectively. Thus, in 1886-7, 1 death occurred to every 13 cases of sickness, and in 1887-8, 1 death to every 26 cases of sickness.

Sickness and
deaths in
orphan
asylums.

328. In hospitals for the insane during 1887, the cases of sickness numbered 1,018, and during 1888 they numbered 1,370. The deaths amounted to 235 at the former period, and 217 at the latter, or an average of 1 death to every 4 cases of sickness in the former, and to every 6 cases of sickness in the latter year.

Sickness and
deaths in
lunatic
asylums.

* Including women accouched outside the hospital by midwives connected with the institution, who numbered 125 in 1886-7, and 212 in 1887-8.

† See paragraph 282 *ante*.

‡ See paragraph 202 *ante*.

Sickness and deaths in gaols. 329. In gaols and penal establishments 3,631 cases of sickness occurred in 1888. The deaths in the same year were 67, exclusive of one death by execution. Thus 1 death occurred to every 54 cases of sickness.

Deaths in public institutions 330. Altogether the number of deaths in penal or charitable institutions during 1887-8* was 2,616, being in the proportion of 1 to every 6·2 deaths which took place in Victoria during the year. The deaths in such institutions in the five years ended with 1886 were in the proportion of 1 to every 6·3 deaths; and in the four years, 1877-80, in that of 1 to every 6 deaths which took place in the whole colony. The following are the names of the institutions and the number of deaths which occurred in each during the year 1887-8:—

DEATHS IN PUBLIC INSTITUTIONS, 1887-8.

					Number of Deaths.
General hospitals ...	...	...	...	...	1,837
Women's Hospital—					
Infirmary Department †	...	...	...	...	16
Midwifery Department ‡	...	...	...	...	24
Hospital for Sick Children	...	...	...	...	43
Benevolent asylums	...	...	...	...	251
Melbourne Immigrants' Home	...	...	...	...	93
Orphan asylums	...	...	...	...	5
Victorian Asylum and School for the Blind	...	...	...	...	1
Deaf and Dumb Institution	...	...	...	...	1
Hospitals for the insane	...	...	...	...	217
Female refuges	...	...	...	...	5
Victorian Infant Asylum	...	...	...	...	16
Industrial and reformatory schools	...	...	...	...	40 §
Gaols (inclusive of Police gaols)	...	...	...	...	64
Penal establishments	...	...	...	...	3
Total...	...	...	...	...	2,616

Deaths in public institutions in England. 331. In England and Wales during 1882, 1 out of every 10 deaths registered occurred in a workhouse, hospital, or lunatic asylum. Of such deaths, 63 per cent. occurred in the first of these institutions, 28 per cent. in the second, and 9 per cent. in the third.

Sick and infirm. 332. The householder's schedule used at the census of 1881 contained a column headed "Health," respecting which an instruction was given to the effect that, if any person was unable to follow his usual occupation by reason of illness or accident, or was afflicted with

* The figures relating to hospitals for the insane, industrial and reformatory schools, gaols, and penal establishments are for the year ended 31st December, and those relating to the other institutions are for the year ended 30th June, 1888.

† Formerly known as the Hospital for Diseases of Women and Children.

‡ Formerly known as the Lying-in Hospital. The deaths include those of 20 infants born in the institution.

§ Including deaths of boarded-out and licensed children.

deafmuteism, blindness, lunacy, idiocy, epilepsy, or leprosy,* the name of such infirmity should be entered. As the result of this inquiry, the following information was obtained:—

SICKNESS AND INFIRMITY, 1881.

					Males.	Females.	Total.
Suffering from sickness	...	...	...	...	7,381	5,822	13,203
"	"	accident	...	...	1,162	202	1,364
"	"	deafmuteism	...	...	168	119	287
"	"	blindness	...	...	502	240	742
"	"	lunacy	...	...	1,590	1,243	2,833
"	"	idiocy	...	...	108	53	161
"	"	epilepsy	...	...	176	114	290
"	"	lameness, mutilation, deformity, etc.†	...	...	83	49	132
Total	...	...	...	...	11,170	7,842	19,012

333. The total numbers furnish a proportion of 221 persons suffering from infirmity in every 10,000 of the population, of 247 infirm males in every 10,000 males, of 191 infirm females in every 10,000 females. Proportion of infirm to population

334. The sick when the census of 1881 was taken were found to be in the proportion of 153, and those laid up in consequence of accidents in that of 16 to every 10,000 of the population. The two combined, representing those entirely disabled for the time being, but not as a rule permanently affected, were thus in the proportion of 169 to every 10,000 living, or 1 in 59. A similar combination gives a proportion of 189 disabled males in every 10,000 males living, or 1 in 53; of 147 disabled females in every 10,000 females living, or 1 in 68. Sickness and accidents.

335. The deafmutes, the blind, the lunatics, the idiots, and the crippled, maimed, and deformed persons represent those having some defect or injury which is generally permanent, but which often does not disable them from following some description of labour, and does not always prevent them from earning their own livelihood, although no doubt in most cases it seriously affects their usefulness to the community. These numbered 4,445, viz., 2,627 males, and 1,818 females, or 1 person in every 194, 1 male in every 172, and 1 female in every 226. Permanent infirmities

* No case of leprosy was returned either in 1871 or 1881. It is known that this infirmity existed at both periods, to a small extent, among the Chinese; but the sub-enumerators did not distinguish it from ordinary sickness.

† The information in this line was not asked for, and is no doubt incomplete.

Deafmute-
ism.

336. The deaf and dumb were in the proportion of 3·33 per 10,000 persons living; of 3·72 deaf and dumb males per 10,000 males, and of 2·90 deaf and dumb females per 10,000 females. These proportions, stated in other words, are 1 deafmute in 3,005 of the total population, 1 in 2,691 of the males, and 1 in 3,448 of the females.

Deaf-
muteism in
various
countries.

337. The following are the proportions per 10,000 of the population of deaf and dumb persons in as many Australasian colonies and other countries as the information is available for:—

DEAFMUTEISM IN VARIOUS COUNTRIES.

	Deafmutes per 10,000 living.		Deafmutes per 10,000 living.
Switzerland ...	24·52	France ...	6·26
Austria ...	13·07	Denmark ...	6·20
Hungary ...	12·63	Great Britain and	
Sweden ...	10·23	Ireland ...	5·74
Prussia ...	10·19	Tasmania ...	5·44
Finland ...	10·18	Italy ...	5·37
Germany (exclusive of		Spain ...	4·59
Prussia) ...	9·31	Belgium ...	4·45
Norway ...	8·64	Holland ...	3·35
Canada ...	8·05	Victoria ...	3·33
Portugal ...	7·47	South Australia ...	2·90
United States ...	6·75	Western Australia ...	2·36
Greece ...	6·46	New Zealand ...	2·33

NOTE.—The figures, except those relating to the Australasian colonies, have been taken (with some corrections) and rearranged from Dr. Rasari's paper, page 179.

Deaf-
muteism in
Australasia
and else-
where.

338. It will be observed that the proportions of deaf and dumb persons to the population are smaller in New Zealand, Western Australia, South Australia, and Victoria, than in any other countries; but Holland, Belgium, Spain, and Italy stand above Tasmania. The country in which deafmuteism prevails to its greatest extent is Switzerland, about 1 person in every 400 being affected in this manner.

Blindness.

339. Blind persons in Victoria were found in 1881 to be in the proportion of 8·60 per 10,000 persons living; blind males in that of 11·10 to every 10,000 males; blind females in that of 5·85 to every 10,000 females. There was thus 1 blind person in every 1,162 of mixed sexes, or 1 blind male in every 901 males, and 1 blind female in every 1,709 females.

Blindness in
various
countries.

340. Subjoined are the proportions of blind persons to the populations of the respective countries named:—

BLINDNESS IN VARIOUS COUNTRIES.

Blind persons per 10,000 living.			Blind persons per 10,000 living.		
Portugal ...	...	21·90	France ...	...	8·37
Finland ...	...	21·15	Prussia ...	...	8·31
Tasmania ...	...	16·00	Belgium ...	...	8·11
Spain ...	...	14·79	Sweden ...	...	8·06
Western Australia ...	...	13·79	Germany(exclusive of Prussia)	...	7·93
Norway ...	...	13·57	Denmark ...	...	7·86
Hungary ...	...	13·24	Italy ...	...	7·63
Great Britain and Ireland	...	9·85	Switzerland ...	...	7·61
United States ...	...	9·75	South Australia ...	...	7·06
Austria ...	...	9·07	Canada ...	...	6·19
Greece ...	...	8·96	Holland ...	...	4·45
Victoria ...	...	8·60	New Zealand ...	...	2·82

NOTE.—These figures, except those relating to the Australasian colonies, have been taken (with some corrections) and rearranged from Dr. Raseri's paper, page 179.

341. According to these figures, the people of New Zealand enjoy a greater immunity from blindness than those of any other country, and the people of South Australia than those of any other country except New Zealand, Holland and Canada. Victoria has a larger proportion of blind persons than 12, but a smaller one than 11 of the other countries named; whilst Western Australia has a larger proportion than all but four, and Tasmania than all but two of the other countries. Most blindness appears to exist in two countries situated so widely apart as Portugal and Finland, the proportion being 1 blind person to about every 450 of the population.

Blindness
in Austral-
asian colo-
nies and
elsewhere.

342. Lunatics in Victoria were in the proportion of 32·85 per 10,000 of the population, viz., 35·17 male lunatics per 10,000 males living, and 30·30 female lunatics per 10,000 females living. Thus 1 person in every 304, 1 male in every 284, 1 female in every 330, was a lunatic.

Lunacy.

343. From whatever cause, lunacy appears to be much more rife in Victoria than in England and Wales. When the census of 1881 was taken, the proportion in the latter was 1 lunatic in every 502 of the population, which is a much lower proportion than that found to exist in Victoria at the same census.*

Lunacy in
England
and Wales.

344. The only Australasian colonies besides Victoria which collected complete returns of lunacy apart from idiocy were New Zealand, South Australia and Tasmania, in all of which the proportion was lower than in this colony, as will be seen by the following figures:—

Lunacy in
Austral-
asian
colonies.

* See General Report on the Census of England and Wales, 1881, page 67.

LUNACY IN AUSTRALASIAN COLONIES, 1881.

1. Victoria had 1 lunatic in every	...	304 persons.
2. Tasmania " "	...	334 "
3. South Australia " "	...	436 "
4. New Zealand " "	...	437 "

Lunacy in
Queensland

345. The census returns of Queensland contain a return of the number of lunatics in asylums, but give no account of those in private houses, gaols, etc. The number was 563, or 1 in 379 of the population, which is a higher proportion than that which the total number of lunatics bore to the population of New Zealand or South Australia, but not so high as that which obtained in the other two colonies furnishing returns.

Idiocy.

346. Persons returned as idiots in this colony were in the proportion of 1·87 per 10,000 of the population; 2·38 idiot males per 10,000 males, 1·29 idiot females per 10,000 females. These proportions may be otherwise stated as 1 idiot in every 5,356 persons, 1 idiot male in every 4,186 males, 1 idiot female in every 7,741 females.

Idiocy in
various
countries.

347. The following are the proportions of idiots to the populations of three of the Australasian colonies and various other countries. It is probable that imbeciles are included with idiots in most if not all the countries out of Australasia, as the proportions relating to such countries are in every case higher than those relating to New Zealand and Victoria, and in all cases but four they are also higher than those relating to Tasmania:—

IDIOCY IN VARIOUS COUNTRIES.

Idiots per 10,000 living.				Idiots per 10,000 living.			
United States	...	...	15·33	Italy	...	...	6·91
Portugal	...	...	15·09	Tasmania	...	...	6·57
Austria	...	...	14·64	Greece	...	...	6·53
Germany (exclusive of Prussia)	...	...	13·65	Spain	...	...	5·47
Great Britain and Ireland	...	...	12·92	Belgium	...	...	5·02
Hungary	...	...	11·86	Sweden	...	...	3·92
France	...	...	11·40	Victoria	...	...	1·87
Denmark	...	...	8·31	New Zealand	...	...	1·18

NOTE.—The figures, except those relating to the Australasian colonies, have been taken (with some corrections) and rearranged from Dr. Raseri's paper, page 179.

Epilepsy.

348. Epileptic persons in 1881 were in proportion of 3·36 per 10,000 of the population of Victoria, of 3·89 per 10,000 males, and of

2·78 per 10,000 females; or, in other words, 1 person in every 2,974, 1 male in every 2,569, 1 female in every 3,599, was subject to attacks of epilepsy.

349. The census of England and Wales does not supply any information on the subject of epilepsy, and the only Australasian colony, except Victoria, which collects such information appears to be New Zealand, in which, according to the census of 1881, the proportion of epileptic persons was 1 in every 2,525 of the population, thereby showing a higher ratio of epilepsy than that found to prevail in Victoria.

350. The Victorian Central Board of Health, which consists of a President, and at present, six other members, although the normal strength of the Board is nine members, renders important service in devising and carrying into effect measures for the preservation of the public health, and especially in preventing the spread of contagious diseases. The Board meets fortnightly, but the President, who is a salaried officer, and gives his whole time and attention to the duties of his position, is empowered to take all necessary action during the intervals, reporting fully to the Board at its next meeting. The number of Local Boards is 184, and these are in constant communication with, and take instructions from the Central Board. A short account of its work and objects, written by Mr. A. P. Akehurst, the President of the Central Board, specially for the *Victorian Year-Book*, together with several important circulars issued by the Board, was published in an Appendix near the end of the *Victorian Year-Book* 1885-6. The Board in their report for 1886-7,* lays down the following as the position which a Central Board of Health ought to occupy:—

“To keep all local authorities and their officers in the active exercise of their own legally-imposed and responsible functions; to make itself acquainted with any default, and to remedy it; to direct inquiries, medical and otherwise; to give advice and plans when required; to sanction some of the larger proceedings of the local authorities; to issue provisional orders, subject to Parliamentary confirmation; to receive complaints and appeals; to issue medical regulations on emergencies, and to collect medical reports.”

Proposed
Department of
Public
Health.

351. An Act has recently been passed by Parliament* which provides for the formation of a Department of Public Health, and for vesting in a responsible Minister the present powers and duties of the Central Board, for which an elective Board is to be substituted.

Meteorologi-
cal observa-
tions, 1888.

352. The following are the results of meteorological observations taken at different stations throughout the colony during 1888. These places are arranged in the table in the order of their altitude above the level of the sea. The last three are situated in the interior, but the others are on the sea-board. The times at which the observations for mean temperature and mean atmospheric pressure are obtained differ at the various stations; but a correction is applied, in order to make the results equivalent to those which would be derived from hourly observations taken throughout the day and night:—

METEOROLOGICAL OBSERVATIONS AT VARIOUS STATIONS, 1888.

Stations.	Height above Sea-level.	Temperature in the Shade.		
		Max.	Min.	Mean.
	feet.			
Portland	37·0	102·0	31·0	56·4
Gabo Island	50·0	82·0	35·0	56·4
Melbourne	91·3	104·0	28·3	57·5
Cape Otway	270·0	103·0	37·0	55·1
Wilson's Promontory ...	301·0	101·0	38·0	56·0
Echuca	314·0	109·0	28·0	61·5
Sandhurst	701·0	109·0	31·2	60·0
Ballarat	1,438·0	104·6	28·5	54·1

Stations.	Mean Atmospheric Pressure.	Days on which Rain fell.	Amount of Rainfall.	Mean Relative Humidity.	Amount of Cloud.
	inches.	No.	inches.	0—1.	0—10.
Portland	30·016	156	25·50	·76	4·8
Gabo Island	29·950	129	31·50	·85	5·9
Melbourne	29·992	123	19·42	·71	5·5
Cape Otway	29·796	187	29·48	·76	6·4
Wilson's Promontory ...	29·668	161	40·88	·75	6·1
Echuca	29·690	63	11·68	...	...
Sandhurst	29·304	100	12·38	·63	3·8
Ballarat	28·609	132	21·21	·74	4·8

Meteorology
in Mel-
bourne, 1864
to 1888.

353. The following are the results for Melbourne in each of the twenty-five years ended with 1888:—

* The Public Health Act 1889 (53 Vict. No. 1,044).

METEOROLOGICAL OBSERVATIONS AT MELBOURNE.—RETURN FOR
TWENTY-FIVE YEARS.

(Observatory 91·3 feet above the Sea-level.)

Year.	Temperature in the Shade.			Mean Atmospheric Pressure.	Days on which Rain fell.	Amount of Rainfall.	Mean Relative Humidity.	Mean Amount of Cloud.
	Max.	Min.	Mean.					
	°	°	°	inches.	No.	inches.	0—1.	0—10.
1864	96·6	30·5	57·1	29·94	144	27·40	·72	6·1
1865	103·4	30·9	53·5	29·94	119	15·94	·68	5·6
1866	108·2	28·0	57·8	29·95	107	22·41	·70	5·5
1867	108·4	29·7	57·7	29·92	133	25·79	·72	5·7
1868	110·0	27·4	57·1	29·98	120	18·27	·70	5·7
1869	108·4	27·0	57·2	29·94	129	24·59	·71	6·0
1870	109·0	29·6	57·4	29·93	129	33·76	·74	5·8
1871	106·0	32·1	57·7	29·93	125	30·17	·74	5·9
1872	103·3	32·5	57·6	29·92	136	32·52	·74	6·4
1873	102·4	30·2	58·0	29·94	134	25·61	·72	6·0
1874	102·7	29·3	56·6	29·93	134	28·10	·72	6·1
1875	110·4	31·1	56·6	29·89	158	32·87	·72	6·2
1876	110·7	29·0	57·0	29·93	134	24·04	·70	5·8
1877	100·7	31·0	56·7	29·99	124	24·10	·70	5·8
1878	103·4	31·1	57·4	29·90	116	25·36	·71	6·0
1879	106·0	30·5	56·8	29·92	127	19·28	·71	5·8
1880	106·5	29·0	57·8	29·92	147	28·48	·72	6·0
1881	99·9	31·9	57·1	29·97	134	24·08	·68	5·9
1882	110·5	31·5	57·4	29·90	131	22·39	·68	5·6
1883	104·9	31·7	58·0	29·92	130	23·71	·69	5·9
1884	100·7	29·9	56·7	29·94	128	25·85	·71	6·2
1885	101·6	29·9	57·1	30·00	123	26·94	·71	6·3
1886	104·1	28·1	57·1	29·96	128	24·00	·71	6·0
1887	104·9	33·0	58·1	29·94	153	32·39	·74	6·1
1888	104·0	28·3	57·5	29·99	123	19·42	·71	5·5
Means	105·0	30·1	57·3	29·94	131	25·50	·71	5·9

354. It will be noticed that in 1888, according to observations taken at the Melbourne Observatory, the maximum temperature was slightly below, and the minimum temperature nearly 2 degrees below, the mean of the maxima and minima in twenty-five years; that the mean temperature and the mean atmospheric pressure were both a fraction above the average, but the mean relative humidity was exactly the same as the average; also that the amount of cloud which prevailed was below the average, that rain fell on eight days less than usual, and the rainfall was over 6 inches below the average.

355. During the period of twenty-five years a higher temperature than the maximum of 1888 was experienced in fourteen, and a lower one than the minimum in four of the previous years; moreover the mean temperature was higher than in sixteen of the years; the days

Observations in 1888 compared with means.

Observations in 1888 and former years compared.

on which rain fell were less numerous than in twenty of the years, and the amount of rainfall was less than in any of the years except 1865, 1868, and 1879.

Mean temperature in Melbourne and elsewhere.

356. The mean temperature of Melbourne over a series of years (57·3) corresponds with that of Bathurst, a town in the interior of New South Wales, situated 2,150 feet above the sea-level, and is about equal to that of Washington (56·9°), Bordeaux (57·0°), Madrid (57·2°), and Marseilles (58·3°). It is lower by $5\frac{1}{3}$ degrees than that of Sydney (62·5°), and lower by $7\frac{1}{3}$ degrees than that of Adelaide (64·6°).*

Mean rainfall in Melbourne and elsewhere.

357. The mean rainfall in Melbourne (25·5in.) corresponds approximately with that of Ventnor in England (25·5in.), Bathurst in New South Wales (25·0in.), and Toulouse in France (24·9in.) It is above that in London (24·0in.), Nottingham (23·7in.), or Paris (22·9in.), is 5 inches above that in Adelaide (20·5in.), but is only about half as much as that in Sydney (50·1in.).*

Errors of great telescope.

358. The Board of Visitors to the Melbourne Observatory in their report dated 12th September, 1889,† state that the polishing of the mirrors of the great telescope has been in progress some time, and, although certain preliminary difficulties have been overcome, it is doubtful whether the work can be satisfactorily completed; for while it has been found possible to obtain both figure and polish sufficient for many of the ordinary uses of the instrument, it is admitted on all hands that to procure results at all adequate to the higher purposes to which telescopes of the first order are now applied is a matter of extreme difficulty. In this opinion, Sir Howard Grubb, who constructed the telescope, fully concurs, and has stated his reluctance to undertake the task of repolishing the mirrors. From the fact that such repolishing will become more frequently necessary henceforward, and that the climatic extremes of temperature render it specially difficult in this country, the visitors state that they are almost forced

* The observations, except those for Melbourne and Adelaide, have been taken from a work entitled *Physical Geography and Climate of New South Wales*, by H. C. Russell, F.R.A.S., Government Astronomer of that colony.

† Parliamentary Paper, No. 144, Session 1889.

to the conclusion—already arrived at elsewhere—that for astronomical purposes a refracting telescope is preferable to a reflector, and that the great success which has lately attended the production of object glasses of large diameter confirms this view; they therefore suggest that the expediency of replacing the mirror of the great telescope with a refracting objective—which, they believe, could be done at a comparatively moderate cost—be considered.*

359. An extended account of the meteorology and climate of Victoria will be found in the *Victorian Year-Book*, 1874, paragraphs 54 to 95. Meteorology
elsewhere
treated on.

* An interesting description of the Melbourne Observatory and of the great Melbourne telescope, by Mr. E. J. White, the then acting Government Astronomer, will be found in the *Victorian Year-Book*, 1874, page 231, *et seq.*

PART VI.—PRODUCTION.

Alienation
of Crown
lands.

360. The mode of disposing of Crown lands in Victoria has undergone numerous changes. At first it was necessary that all lands should be offered at auction before passing into the hands of private individuals, an upset price, according to its value, being placed upon it by the Government. Until 1840 the minimum upset price was 12s. per acre, it was then raised to 20s. Land which had passed the auctioneer's hammer without being bid for was open to be bought by any one at the upset price. Large blocks of land, called special surveys, and a block of a square mile in extent upon each squatting run, were, under certain Orders in Council, exempted from auction, and were permitted to be purchased at £1 per acre.

Special
surveys.

Land Act
1860 (24
Vict. No.
117).

361. In 1860 the system was changed, and a law was passed permitting surveyed country lands to be selected at a uniform upset price of £1 per acre, the only exception being where two or more selectors applied simultaneously for one block, in which case a limited auction, confined only to such applicants, was to take place. The successful selector had the option of either paying for the whole of his block in cash or only for half; in the latter case, renting the other half at 1s. per acre per annum, with the right to purchase at the same rate per acre as he paid for the first moiety.

Land Act
1862 (25
Vict. No.
145).

362. Another change was made in 1862. Large agricultural areas were proclaimed open for selection, within which land could be selected, at a uniform price of £1 per acre, lot being substituted for limited auction in the event of there being more than one applicant for an allotment. For one-half of the allotment it was necessary to pay at once; but for the remainder the purchase-money was allowed to be paid by instalments of 2s. 6d. each, extending over eight years. No more than 640 acres could be selected by one person in twelve months. Three alternative conditions, to be complied with within twelve months of the date of selection, were imposed upon selectors under this Act:—Either that the selections be enclosed with a substantial fence; or that a habitable dwelling be erected on the land; or that one acre out of every 10 acres selected be cultivated.

363. The next change was made in 1865, when an Act was passed providing that agricultural land could be acquired by payment of 2s. per acre per annum during three years, and by effecting improvements to the extent of 20s. per acre within two years of the commencement of the lease. These conditions having been complied with, the lessee might, at the expiration of three years, if he resided upon the land, purchase his holding at £1 per acre; or, if not, he could require his leasehold to be offered at auction at the uniform price of 20s. per acre, with the value of improvements added in his favour. There was also a clause* whereby land adjacent to gold fields could be occupied in blocks of 20 acres each without having been previously surveyed. This clause was originally framed to meet the demand for the occupation of land adjacent to gold fields, but its operation was gradually extended by regulation to a circuit of 30 miles around gold fields, and the same individual was allowed to hold several 20-acre licences for the occupation of adjacent land to the total extent of 160 acres. The licensee, in all cases, was bound either to reside on his holding or to fence and cultivate a certain portion.

*Amending
Land Act
1865 (28
Vict. No.
237).*

364. The operation of the last-mentioned clause was so successful in leading to the occupation of the land that free selection before survey was the main principle of the next Land Act, which was passed in 1869, and came into operation on the 1st February, 1870. Under it, the area allowed to be selected by one person was limited to 320 acres; and it was further provided that the selection should be held under licence during the first three years, within which period the licensee was obliged to reside on his selection at least two and a half years, to enclose it, to cultivate 1 acre out of every 10, and generally to effect substantial improvements to the value of 20s. per acre. The rent payable during this period was 2s. per acre per annum, which was credited to the selector as part payment of the principal, viz., 20s. per acre without interest.† At the expiration of the three years' licence, the selector, if he obtained a certificate from the Board of Land and Works that he had complied with these conditions, could either purchase his holding at once, by paying up the balance of 14s. per acre, or might convert his licence into a lease extending over seven years, at an annual rental of 2s. per acre, which was also credited to the selector as part payment of the fee-simple. On the expiry of such lease, and due payment of the rent, the land became the freehold of the selector. The Statute also contained provision for the sale of Crown lands by auction at an upset price of £1 per acre, or such

*Land Act
1869 (33
Vict. No.
360).*

* The 42nd clause.

† See paragraph 396 *post*.

higher sum as the Governor in Council may direct, the whole extent to be sold in any one year not to exceed 200,000 acres.

*Amending
Land Act
1878 (42
Vict. No.
634).*

365. The *Land Act* of 1869, just described, was amended by the *Land Act* 1878, which came into operation at the beginning of 1879. The principal alterations made by this amending Act, as regards selection for agricultural purposes, was to increase the period during which the land was held under licence from three to six years, and the time of compulsory residence from two and a half years to five years, and to reduce the annual rental per acre for a licence or lease from 2s. to 1s., which thereby allowed the payments to extend over a period of twenty years instead of ten years as formerly.* It also contained a provision for selection by persons who did not desire to reside on their selections. In such cases, however, the rent was 2s. per acre, and the total price to be paid for the land £2 per acre. Improvements to the value of £2 per acre, moreover, had to be made during the six years' licence, of which at least half were to be made before the expiration of the third year. Such licences are not to be issued in any one year for an aggregate area of more than 200,000 acres. Both these Acts expired by effluxion of time on the 31st December, 1884.

*Pastoral
occupation
under Land
Act 1869.
Runs.*

366. According to the *Land Act* 1869, the unalienated and unselected Crown lands† were occupied for pastoral purposes either as "runs" under licence or lease, or as "grazing rights." Runs were of two kinds: those in existence at the time of the passing of the *Land Act* 1869 (viz., on 29th December, 1869), and not since forfeited—described in the Act as "Existing runs"; and those created since that date—described in the Act as "New runs." The former kind, which were by far the more numerous and extensive, were held under pastoral licence renewable annually, and were unlimited as to size. The latter, which were but few in number, were held under lease for any term not exceeding 14 years—the right to the lease having, in the first instance, been purchased at auction—and were not permitted to be of larger extent than sufficient to carry 4,000 sheep or 1,000 head of cattle. An important privilege enjoyed by lessees of "new runs" was that they were entitled to the pre-emption of 320 acres on which their improvements were situated at the rate of £1 per acre.‡ The annual rent payable for both descriptions of runs was assessed in accordance with the grazing capability of the land licensed or leased, on the basis of 1s. for every

* See paragraph 396 post.

† Since the 1st December, 1883, the Crown lands situated in the Mallee country have been dealt with under a special Act.—See next paragraph.

‡ Under an Order of Her Majesty's Council, the lessees of the old or "existing" runs had been allowed a "pre-emptive right" to 640 acres.

sheep and 5s. for every head of cattle the run was capable of carrying. As, however, the right of pre-emption to 320 acres at £1 per acre, without conditions as to residence, cultivation, etc., was considered too great a sacrifice of the public estate, the occupation of "new runs" was discouraged by the Government; but, in order to allow of the waste lands of the Crown being used for pastoral purposes, advantage was taken of a provision embodied in sub-section 7 of the 47th section of the Act, whereby the Governor in Council was empowered to grant a licence—known as a "grazing right"—to depasture live stock upon any park lands, reserves, or other Crown lands not forming part of any run or common. Under this provision, the unoccupied pastoral lands were divided up into blocks and offered for tender under annual licence.

Grazing
rights.

367. An Act dealing with the unalienated lands situated in the north-western portion of the colony, comprising about one-fifth of its extent, or some $11\frac{1}{2}$ million acres wholly or partially covered with the various species of stunted trees of which the "Mallee scrub" is composed, was passed in 1883. This Act, entitled the *Mallee Pastoral Leases Act 1883* (47 Vict. No. 766), came into force on the 1st December, 1883. It divides the country just described into two main divisions—the larger division containing about ten million acres, being known as the "Mallee country"; and the other containing about one and a half million acres, and situated along the southern and eastern borders of the Mallee country, being called the "Mallee border."

*Mallee
Pastoral
Leases Act
1883.*

368. The Act directs that the "Mallee country" be divided into blocks of various sizes, each block to be subdivided into two parts. For either of these, at the option of the applicant, a lease may be granted under certain conditions, the lessee being also bound to occupy the other division. The principal conditions are that the lessee destroy all vermin (native dogs, rabbits, etc.) upon the whole block within the first three years, surrender to the Crown the unleased portion at the end of five years, and keep in good condition and repair all improvements made upon the land. A lease for a Mallee block may be granted for any term of years not longer than 20 from the commencement of the Act, at the end of which term (viz., on the 1st December, 1903) the land, with all improvements, reverts to the Crown. Every person who had occupied under pastoral or grazing licence any portion of the Mallee country for two years prior to the 1st December, 1883, was entitled to take up one Mallee block comprising the whole or any portion of the area occupied by him; but, in the event of his not applying for this privilege within one month of the passing of the Act, the right of lease was to be sold by auction to the highest bidder. The annual rent to be charged for the leased

*Mallee
blocks.*

portion of the block was fixed at 2d. for each sheep, or 1s. for each head of cattle depastured during the first five years, 4d. for each sheep or 2s. for each head of cattle during the second five years, and 6d. for each sheep or 3s. for each head of cattle during the remainder of the term; and for the unleased portion of the block 2d. for each sheep or 1s. for each head of cattle; but in no case is the annual rent for the whole block to be less than 2s. 6d. per square mile. No lessee of a Mallee block can acquire any portion thereof in fee-simple.

Mallee
allotments.

369. The "Mallee border" is to be subdivided into "Mallee allotments," varying in size, but not in any case exceeding 20,000 acres. These are to be leased on the same terms and conditions as in the case of the leased portions of a Mallee block; but the annual rent is to be fixed by regulations issued by the Governor in Council. No person is permitted to take a lease of more than one Mallee allotment, nor can the holder of a Mallee block lease obtain also the lease of a Mallee allotment.*

Land Act
1884 (48
Vict. No.
812).

370. A measure entitled the *Land Act* 1884, replacing the *Land Act* 1869, and subsequent Land Acts, except the *Mallee Pastoral Leases Act* 1883, just referred to, came into operation on the 29th December, 1884. Its main features are to restrict the further alienation of the public estate by limiting the extent which may be sold by auction, and by substituting for the previously existing method of selecting agricultural land a system of leasing such lands in certain defined areas, at the same time conserving to the lessee the privilege of acquiring from his leasehold the fee-simple of 320 acres under deferred payments. The Act classifies the whole of the unalienated Crown lands—exclusive of the "Mallee country," dealt with under the *Mallee Pastoral Leases Act* 1883 (47 Vict. No. 766)—as follows:—Pastoral lands, grazing and agricultural lands, auriferous lands, lands which may be sold by auction, swamp lands, State forest reserves, timber reserves, and water reserves. The area of land comprised within each of the above classes respectively is delineated by projections bearing a distinguishing colour or shading on maps of the several counties in which such land is situated. These maps are deposited with the Clerk of Parliaments. The Governor in Council may, however, by proclamation increase or diminish the area comprised in any of the above-mentioned classes, except those relating to lands which may be sold by auction.

* Whilst these pages were passing through the press (25th November, 1889), an Act was passed entitled the *Mallee Act* 1889 (53 Vict. No. 1040), providing that, at any time within three years of the passing thereof, a lessee of a Mallee allotment might select out of such allotment an area, the total extent of which, together with that of any other land previously selected by him, should not exceed 320 acres; the land so selected to be subject to the same conditions as selections under the *Land Act* 1884.

371. Under the *Land Act* 1884, the pastoral lands are to be leased in "pastoral allotments," capable of carrying from 1,000 to 4,000 sheep, or from 150 to 500 head of cattle, for any term not exceeding 14 years,* at the end of which the land, together with all improvements thereon—taken at a valuation as below mentioned—reverts to the Crown, the right to the lease to be granted to the first person who applies for the land after it has been first publicly notified as available, but if there should be two or more applicants, the lease is to be offered at auction. The annual rent payable for pastoral allotments is to be computed according to the grazing capability of the land, at the rate of 1s. per head of sheep and 5s. per head of cattle, upon a basis of not more than 10 acres to a sheep, and the equivalent number of acres for cattle. The principal conditions of the lease are that all "vermin" (rabbits, native dogs, etc.) upon the land shall be destroyed within the first three years, and that all buildings and improvements shall be kept in good condition and repair. Upon the expiration of the lease, the lessee is to be paid by any in-coming tenant the value of all improvements effected and calculated to increase the carrying capability of the land, at a price not exceeding the sum expended thereon, but in no case to exceed 2s. 6d. per acre. Alienation of pastoral lands is not permitted, except in the case of a lessee of a pastoral allotment, who has the right to purchase, at any time during the currency of his lease, 320 acres as a homestead.

Pastoral
occupation.

372. The agricultural and grazing lands are also to be leased in "grazing areas," varying in size, but not exceeding 1,000 acres, for any term not exceeding 14 years,* at the end of which term the land, together with all improvements—to be allowed for at a valuation limited to 10s. per acre—reverts to the Crown. The annual rent of a grazing area is to be appraised by valuers, but is in no case to be less than 2d. or more than 4d. per acre, any improvements that may happen to be on the land at the commencement of the lease to be charged for in addition at the rate of 5 per cent. per annum on the capital value thereof. The only important conditions imposed on the lessee of a grazing area are that he shall, within the first three years, fence the land and destroy all "vermin" thereon. Any person over the age of 18 years is entitled to take up a grazing area; selectors under former Acts, however, being limited to an area, which, together with the land previously selected, must not exceed 1,000 acres. Residence is not required of the holder of a grazing lease, unless he

Agricultural
and grazing
lands.

* No lease is to be granted for a longer term than 14 years from the commencement of the Act.

should select portion of his holding under the terms and conditions specified in the next paragraph.

Selection of
agricultural
allotments.

373. The lessee of a grazing area is at liberty, after the issue of his lease, to select out of the area leased a block or "agricultural allotment" not exceeding 320 acres in extent; but should he have selected under a previous Act or Acts, he is only entitled to increase his selection to such an extent as not to exceed 320 acres in all. A licence is then issued to occupy the agricultural allotment (which is thereafter no longer considered portion of the grazing area), under the same terms and conditions as are allowed to selectors under the *Land Acts* of 1869 and 1878, as detailed in previous paragraphs*; but persons desirous of selecting an agricultural allotment cannot do so without first taking up a grazing area. Provision is also made for grazing area lessees to take up agricultural allotments as non-residence licensees under similar conditions as under the *Land Act* 1878.† The area for which licences may be issued during any year for non-resident selections is limited to 50,000 acres. Other important features of the Act are that every selector—subject to certain conditions and restrictions—is entitled to a Crown grant of portion of his allotment not exceeding 20 acres, if planted as a vineyard or an orchard, upon payment of the balance of the purchase-money due in respect of such portion‡; that the licensee of an agricultural allotment may, after the expiration of two years, obtain an advance of money (by giving a "licence lien") secured up to one-half of the improvements effected‡; that married women are permitted to take up land as pastoral or grazing lessees, but are not allowed to select an agricultural allotment out of the grazing area leased to them; and that facilities are given to allow of a non-resident selector becoming a resident selector, and *vice versa*.‡

Non-resi-
dence
selections.

Only one
selection
may be
made.

374. Under this Act, only one grazing area can be taken up by one person, and, consequently, if the area so taken up should be less than 1,000 acres in extent, the lessee is not allowed by any further selection to make up this quantity. In like manner, if the agricultural allotment he selects from his grazing area is less than 320 acres, he cannot by any further selection add to it or make it up to 320 acres. This provision does not, however, apply to selectors under former Acts, who if they have not selected as much as 320 acres, may, out of a new leasehold, convert into an agricultural allotment, and eventually into a freehold as much as will, with their old selection, make up 320 acres.

* See paragraphs 364 and 365 *ante*.

† See paragraph 365 *ante*.

‡ These privileges, although not previously enacted, are also to be allowed to selectors under previous Acts.

375. Auriferous lands, not required for mining purposes, and not situated within a city, town, or borough, may be occupied under annual licence for purposes of residence or cultivation in areas not exceeding 20 acres; and, for purely pastoral purposes, under licences renewable annually for periods not exceeding 5 years, in blocks not exceeding 1,000 acres. No auriferous land is permitted to be alienated in fee-simple. Auriferous lands.

376. Swamp lands are to be first drained, and may then be leased in areas not exceeding 160 acres for a term of 21 years. Swamp lands.

377. The laws and regulations under which land for agricultural purposes passes from the Crown into the hands of private individuals differ in the various Australasian colonies.* In almost all, however, provision is made for any person of 18 years of age or over, and not a married woman,† desirous of settling on the land to select a certain limited area, and to pay the purchase-money by instalments, the compliance with certain conditions of residence and improvement being also required before the selector becomes entitled to a Crown grant.‡ The principal features of this portion of each system, corrected to date, is detailed under nine heads in the following table:—

CONDITIONS OF LAND SELECTION IN AUSTRALASIAN COLONIES,
1888-9.

Conditions of Selections.	Victoria.	New South Wales.	Queensland.		South Australia.	Western Australia.	Tasmania.	New Zealand.
			Home-steads.	Other Selections.				
1. Maximum area allowed Acres	320	640 and 2,560	160	320 to 1,280	..	1,000	320	640.
2. Price per acre	£1	£1	2s. 6d.	£1	||	10s.	£1	10s. to
3. Time over which purchase may extend Years	20	33	5	upwards	||	20	14	£2
4. Minimum time in which fee-simple may be acquired Years	6	5	5	10	6	5	anytime	6
5. Annual payment per acre ..	1s.	1s.	6d.	£	||	6d.	2s.	6d. to
6. Value of necessary improvements per acre ..	20s.	10s.	10s.	Fencing	Fencing.	10s. and Fencing	..	4s. 20s.
7. Time allowed for making improvements .. Years	6	5	5	5	5	20	..	6
8. Acres in every 100 to be cultivated	10	..	..	..	..	..	..	20
9. Period of residence necessary † Years	5	5	5	£	..	5	14	6

* A complete account of the land system of each colony was published in an Appendix to the *Victorian Year-Book*, 1884-5.

† In Tasmania and Western Australia married women may select land.

‡ In all the colonies, as soon as the purchase-money is paid in full, the residence clause is no longer enforced.

£ See paragraph 380 *post*.

|| See account of South Australian land system, following paragraph 381 *post*.

Land
System of
Victoria.

378. In Victoria the land is taken up in the first instance in blocks not exceeding 1,000 acres, under lease for a term not exceeding 14 years, at a rental of from 2d. to 4d. per acre, out of which leasehold a "selection," not exceeding 320 acres, may be taken up under the conditions named in the preceding table. See also paragraphs 372 to 374 *ante*.

Land
System of
New South
Wales.

379. In New South Wales a territorial division of the colony is made into three zones, viz., the eastern, the central, and the western division. The maximum area allowed in the eastern division is 640, and in the central 2,560 acres. In addition to the selection, a leasehold of an additional area, limited to three times that of the selection (the area of the selection and lease together not to exceed 1,280 acres in the eastern, or 2,560 acres in the central division), may be granted to the selector at an annual rental of not less than 2d. per acre, with the right of conditional purchase after 5 years' tenure. The price per acre does not include interest, for which 4 per cent. per annum is charged and collected out of the annual instalments paid. The first payment is 2s. per acre in advance, with an interval of 3 years before the next instalment of 1s. is payable.

Land
System of
Queensland

380. In Queensland, within the limits named in the table, the maximum area allowed to be selected may be varied in any district by the Government. In that colony the system of leasing has partly supplanted that of alienating the fee-simple of the land by means of deferred payments. The selector first occupies the land under licence, at an annual rental of not less than 3d. per acre, and subsequently, if the condition as to fencing (or improvements of equal value) has been complied with, may obtain a lease for 50 years; the annual rental for the first 10 years being not less than 3d. per acre, but for every succeeding period of 5 years to be fixed by the Land Board. The selector has the right to purchase at not less than 20s. per acre, within 12 years from the date of granting of the lease, during the currency of which personal residence is compulsory. The foregoing remarks relate to agricultural farms; in the case of grazing farms, leases are granted for 30 years at a minimum rental of $\frac{3}{4}$ d. per acre per annum for the first 10 years, but liable to be increased every subsequent 5 years.

Land
System of
South
Australia.

381. In South Australia credit selection was abolished by the *Crown Lands Act* 1888, and in lieu thereof "leases with right to purchase" are now issued for periods of 21 years at certain gazetted rentals, with right of renewal for a further period of 21 years at freshly assessed rentals. The right to purchase may be exercised at

any time after the first six years, at a price fixed by the Land Board of not less than 5s. per acre. The following account of the new system has been kindly furnished for this work by Mr. G. W. Wright, Secretary for Crown Lands, South Australia :—

LAND SYSTEM OF SOUTH AUSTRALIA.

On the passing of the *Crown Lands Act* of 1888, the system of Credit Selection was abolished, and the following mode of obtaining land introduced. Crown Lands can be taken up on leases with right of purchase or perpetual leases. Small blocks not exceeding 20 acres in area, for working men, are also taken up on leases with right of purchase, or on perpetual leases. The province has been divided into four land districts, and a Land Board appointed for each, by which the lands are classified and allotted, and the rents and prices fixed, subject to the approval of the Commissioner of Crown Lands. Lands are gazetted open to lease at rents and prices fixed, and applications for same, accompanied by a deposit of 20 per cent. of the first year's rent, are made to the Commissioner, who refers them to the Land Boards for the districts in which the lands applied for are situated. Upon the successful applicants receiving their leases for signature, they are to forward the balance of the first year's rent and the lease fees to the Land Office. Leases with a right of purchase are allotted for a term of 21 years, with a right of renewal for a further term of 21 years, and with a right of purchase exercisable at any time after the first six years of the term, at the price fixed by the Land Board, the minimum price being five shillings per acre. The annual rent for the first term of 21 years is as gazetted, and the annual rent for the renewed term will be fixed by the Land Board at least twelve months before the expiration of the first term. Perpetual leases will be revalued every 14 years. The rent for the first 14 years is as gazetted, and for subsequent terms of 14 years will be fixed by the Land Board at least twelve months before the expiration of every period of 14 years. The lands allotted are to be fenced within five years from the date of lease, and in the case of working men's blocks the condition of personal residence by the lessee, or any member of his family, is enforced.

382. In Western Australia, the particulars given in the table relate to the South-Western (or Home) District only. In the five other land divisions of the colony, land may be taken up in specially declared areas only by non-resident selectors in areas of from 100 to 5,000 acres at not less than 10 shillings per acre payable in 10 yearly instalments, the conditions required being fencing and the expenditure on improvements of an amount equal to purchase-money. Besides selections under the system of deferred payments, with residence, in the south-west division selections may be made, *without residence*, by paying double the amount of purchase-money, *i.e.*, 1 shilling per acre per annum, the other conditions remaining the same, and there is also a method of selecting land by *direct payment* under certain conditions, the extent of a selection being limited to 1,000 acres in a declared area, and to 5,000 acres outside such area, at a price of not less than 10 shillings per acre; the conditions being fencing within 3 years, and an expenditure of 5 shillings per acre on improvements within 7 years from date of survey. Moreover, pastoral lessees, excepting those in the eastern division, have the privilege of selecting a certain proportion of their leasehold adjoining the Homestead prior to the 1st March,

Land
System of
Western
Australia.

1892, under similar conditions, except in regard to residence, as in the case of other selectors in the respective districts; thus, in the south-western division, the proportion allowed to be selected is 5 per cent. with a maximum of 3,000 acres, and in the other divisions, excepting the eastern, 1 per cent. with a maximum of 5,000 acres; provided also, in the latter case, the runs are stocked with 10 sheep or 1 head of large stock to every 1,000 acres leased.

Land
System of
Tasmania.

383. In Tasmania, $33\frac{1}{3}$ per cent. is added to the price named in the table (£1 per acre) as interest for the period of 14 years.

Land
System of
New
Zealand.

384. In New Zealand, the price per acre varies with the quality of the land. There is besides a system of "perpetual leasing" in that colony, under which as much as 640 acres may be leased at an annual rental equal to 5 per cent. of the value of the land. The first lease is for 30 years, with the option of renewal for succeeding periods of 21 years, the rent being assessed afresh at each renewal. The lessee may acquire the freehold at any time after the required improvements are effected, if the land is not within a proclaimed gold-field. The conditions as regards residence and improvement are the same as under the deferred payment system. The "Homestead system" is also in force throughout the colony to a limit of 30,000 acres in any one year. Under this system no payment is made for the land. After 5 years' residence and the cultivation of one-third of the selection if open land, and one-fifth if bush land, the selector can claim his Crown grant. No family or household can hold more than 200 acres of first-class land or 300 acres of second-class land under this system. In the case of bush land personal residence is not necessary.

Ambiguity
of the term
"aliena-
tion," as
applied to
Crown
lands.

385. In dealing with the figures relating to the alienation of the public estate, it is customary in Victoria to consider Crown lands as sold or alienated—only when the right to the title in fee-simple has been acquired. Consequently a large proportion of the land set down as alienated in any year, having been originally selected with right of purchase under certain conditions, the purchase-money being payable by annual instalments, without interest, may have been virtually parted with many years previously. The land set down as alienated in any year, therefore, consists of the area sold by auction, that granted without purchase, and that selected or conditionally purchased—of which the purchase had been completed during the year. Some of the neighbouring colonies, however, adopt a different principle, for, in their statements of land alienated, that sold conditionally—which, of course, is liable to revert to the Crown

should the conditions of sale not be complied with—is included with that of which the fee-simple has been obtained. Both methods are useful in their way, the Victorian plan giving the more accurate account of the condition of the public estate, and the other giving the better indication of the progress of settlement. In the following paragraphs it may perhaps be sometimes necessary to use the term “alienated” in connexion with land which is only conditionally purchased, but when this occurs such explanation will be given as will prevent a mistake.

386. The total extent of Crown land sold and finally parted with in Victoria up to the end of 1888 was 15,569,645 acres, and the extent granted without purchase was 14,434 acres. The whole area alienated in fee-simple was thus 15,584,079 acres, of which 6,602,278 acres, or 42 per cent., were sold by auction, and nearly the whole of the remainder was originally acquired by selection under the system of deferred payments.

Crown lands
alienated
to end of
1888.

387. The selected lands, of which the purchase had not been completed up to the end of the year, amounted to 10,771,138 acres. Of this extent it is estimated that 3,861,304 acres had been forfeited or abandoned, and had reverted to the Crown. The remainder, representing approximately the whole area in process of alienation under deferred payments, amounted to 6,909,834 acres.

Crown lands
selected.

388. According to the latest computation, the total area of the colony is 56,245,760 acres; and if from this be deducted the sum of the lands granted, sold, and selected, amounting—less the extent forfeited—to 22,493,913 acres, it will follow that the residue, representing the Crown lands neither alienated nor in process of alienation, amounted at the end of 1888 to 33,751,847 acres.

Crown lands
unalien-
ated.

389. The whole of this residue, however, is not available for settlement, for it embraces lands occupied by roads, the unsold portions of the sites of towns, and beds of rivers and lakes; the State forests; water, timber, and other reserves. Deducting these lands—amounting in the aggregate to 5,357,360 acres, also that portion of the colony known as the Mallee country, containing 11,572,000 acres, leased for pastoral purposes under a special Act, and 5,093,921 acres occupied under lease or licence for various terms of years—from the extent unalienated and unselected, already stated to have been 33,751,847 acres, it will be found that the available area is narrowed to 11,728,566 acres. This will be at once seen by the following table which shows the position of the public estate at the end of 1888:—

Public
estate,
1888.

PUBLIC ESTATE OF VICTORIA ON 31ST DECEMBER, 1888.

Condition of Land.	Approximate Number of Acres.
Land alienated in fee-simple	15,584,079
Land in process of alienation under deferred payments ...	6,909,834
Roads in connexion with the above	1,317,000*
Water reserves	248,070
Reserves for agricultural colleges and experimental farms	137,732†
Timber reserves and State forests	1,940,412
Other reserves	208,000
Unsold land in towns, beds of rivers, etc., etc.	1,506,146
Mallee country‡	11,572,000
Land in occupation under—	
Pastoral leases	1,331,930
Grazing area leases	3,445,802
Grazing licences for auriferous lands	316,189
Available for settlement at end of 1888	11,728,566§
Total area of Victoria	56,245,760

Crown lands available for settlement.

390. The area of the colony, exclusive of the Mallee country, is 44,673,760 acres, of which, at the end of 1888, 22,493,913 acres, or 50 per cent., were already alienated or in process of alienation; 5,357,360 acres, or 12 per cent., were occupied by reserves, etc.; 5,093,921 acres, or 11 per cent., were occupied under lease|| for pastoral purposes; and 11,728,566§ acres, or 27 per cent., were available for settlement.

Classification of available land.

391. Following the classification provided for under the existing *Land Act*, the estimated area of Crown lands, exclusive of the Mallee country, available, under the *Land Act* 1884, at the end of 1888 may be divided as follows ¶:—

CLASSIFICATION OF LAND AVAILABLE AT END OF 1888.

	Acres:
Pastoral lands	5,084,130¶
Agricultural and grazing lands	5,324,235¶
Auriferous lands	1,127,000
Swamp lands	87,260
May be sold by auction	105,941
Total	11,728,566

* Calculated at 5 per cent. of the gross extent sold and selected up to the end of 1888.

† Only 13,393 acres of this area is for the sites of colleges and experimental farms, the balance being intended as an endowment in aid. Of this balance, 119,800 acres were leased for agricultural and grazing purposes, and return an annual revenue of £5,151.

‡ Occupied for pastoral purposes, under the *Mallee Pastoral Leases Act* 1883, for terms not exceeding 20 years. See paragraph 409 *post*. It has recently been thrown open to selection.

§ Of this area, 6,725,326 acres is temporarily held under grazing licences, renewable annually; only 105,941 acres of it may be sold by auction.

|| Including a small proportion under licence for periods of five years.

¶ Since the passing of the *Land Act* 1884 the lands classed as Pastoral have been reduced, and those classed as Agricultural and Grazing have been increased. For particulars of Crown land in occupation at end of 1888 see paragraph 405 *post*.

392. The land finally alienated from the Crown in fee-simple during 1888 amounted to 439,490 acres, of which 438,968 acres were sold, and 522 acres were granted without purchase. The total extent was greater by 75,098 acres than in 1887, and was also greater than in any other of the previous eleven years, except 1881 to 1884. Crown lands alienated, 1888.

393. Of the area sold, 20,024 acres, or $4\frac{1}{2}$ per cent. were disposed of by auction, nearly the whole of the remainder had been in the first instance selected in previous years under the system of deferred payments. The extent sold by auction in 1888 slightly exceeded that in 1887 or 1876; it was, however, with two exceptions, far smaller than in any of the sixteen years ended with 1885, during which period the annual average extent so sold was 63,700 acres, and the maximum over 150,000 acres. Crown land sold by auction.

394. The amount realized for Crown lands finally alienated in 1888 was £644,112, or at the rate of £1 9s. 4d.* per acre. Of this sum, only part was received during the year, nearly all the remainder having been paid in former years as rents and licence fees. The proportion sold by auction realized £216,286, or an average of £10 16s. per acre; and the proportion sold otherwise than at auction realized £427,826, or an average of £1 0s. 5d. per acre. Amount realized on Crown land alienated in 1888.

395. The principle of deferred payments in connexion with sales of Crown lands by auction was introduced for the first time in the *Land Act* 1884,† it being necessary to pay one-fourth of the price bid at the time of sale, the remaining three-fourths being, at the option of the purchaser, spread over three years, payable quarterly, in instalments of equal amounts, bearing interest at the rate of 6 per cent. per annum. The majority of purchasers do not avail themselves of this concession, as only £141,527, out of a total of £521,797 during the last four years was left unpaid at the time, the amount received being £380,270, as well as £9,580 for interest. Deferred payments on lands sold by auction.

* In view of the fact that payment for the greater portion extended over a term of years without interest, the actual average price was much less than this. See paragraph 396 post.

† 48 Vict. No. 812, Section 71.

396. From the period of the first settlement of the colony to the end of 1888, the amount nominally realized by the sale of Crown lands was £23,981,531, or at the rate of £1 10s. 10d. per acre. It must, however, be remembered that payment of a considerable portion of this amount extended over a series of years without interest, allowance for which, at the current rate, would, it is evident, materially reduce the amount the State actually obtained for the land. It may be calculated that, with interest at 5 per cent., if the payment of the £1 per acre by equal annual instalments be extended over 10 years without interest, the amount of purchase-money is really equivalent to only 15s. 6d. per acre, and if it be extended over 20 years, it is reduced to 12s. 6d. per acre.

397. During the year 1888, 327 applications were granted for the selection of 53,738 acres under the deferred payment system.* The whole of this area, excepting 30 acres, was selected out of grazing areas leased in allotments limited to 320 acres, nominally for agricultural purposes; and the remaining 30 acres were taken up in parcels averaging 3 acres each, for purposes of residence. These transactions were only partly under the *Land Act* 1884; the balance being under the *Land Acts* 1869 and 1878, the applications having been duly lodged before the end of 1884, when those Acts were repealed. The following is a summary of the selectors, the number of acres selected, and the amount of purchase-money payable under each authority during the year 1888:—

SELECTORS AND EXTENT SELECTED, 1888.

Selections of Crown Lands, 1888, for purpose of—	Legalization.	Number of Selectors.	Area Selected.	Purchase money payable. (Nominal.)
Agriculture, with residence	{ <i>Land Act</i> 1869, secs. 19 and 49	21	Acres. 2,950	£ 2,950
„ without residence	{ <i>Land Act</i> 1884, sec. 42 <i>Land Act</i> 1878, sec. 11	296	50,758	50,758
Residence	{ <i>Land Act</i> 1884, sec. 49 <i>Land Act</i> 1878, sec. 10	10	30	90
Total	...	327	53,738	53,798

* See paragraphs 364 and 365 ante.

398. The number of selectors approximates closely to the number of approved applications. The following are the numbers in each of the years named in the last table, those under the different sections of the *Land Acts* 1869, 1878, and 1884 being distinguished:—

APPROVED APPLICATIONS (SELECTORS), 1870 TO 1888.

Year.			Number of Selectors of Land.				Total.
			For Purposes of Cultivation.		For Residence and Cultivation near Goldfields. (Section 49, Act No. 360.)	For Residence. (Section 10, Act No. 634.)	
			With Residence. (Sec. 19, Act No. 360; and Sec. 49, Act No. 812.)	Without Residence. (Section 11, Act No. 634.)			
1870	...	...	3,017	...	131	...	3,148
1871	...	...	4,575	...	673	...	5,248
1872	...	...	7,771	...	1,408	...	9,179
1873	...	...	6,689	...	1,455	...	8,144
1874	...	...	9,578	...	1,493	...	11,071
1875	...	...	6,320	...	771	...	7,091
1876	...	...	5,785	...	697	...	6,482
1877	...	...	6,240	...	777	...	7,017
1878	...	...	7,524	...	1,534	...	9,058
1879	...	...	5,726	75	887	...	6,688
1880	...	...	4,036	67	1,054	56	5,213
1881	...	...	3,110	42	1,151	106	4,409
1882	...	...	4,383	51	837	47	5,318
1883	...	...	4,453	58	1,070	22	5,603
1884	...	...	3,918	71	1,002	11	5,002
1885	...	...	3,930	68	714	83	4,795*
1886	...	...	943	25	173	49	1,190*
1887	...	...	147	...	39	15	201
1888	...	...	317	...	...	10	327
Total	...	...	88,462	457	15,866	399	105,184

399. The extent of Crown lands absolutely or conditionally alienated during each year since the passing of the *Land Act* 1869 is shown in the following table, which distinguishes the extent sold by auction and that granted without purchase from that conditionally alienated or selected:—

* The great majority of the applications approved in the years 1885 to 1886 were lodged in 1884, under the provisions of the *Land Act* 1869.

CROWN LANDS ABSOLUTELY AND CONDITIONALLY ALIENATED,
1870 TO 1888.

Year.	Area, Granted, Sold, and Selected.			Total.
	Granted without Purchase.	Sold by Auction.	Conditionally alienated.† (Selected).	
	Acres.	Acres.	Acres.	Acres.
1870	21	148,685	322,592	471,298
1871	118	118,440	487,436	605,994
1872	320	146,611	797,176	944,107
1873	1,575	19,929	1,063,066	1,084,570
1874	44	49,655	1,831,698	1,881,397
1875 ... ..	...	83,395	1,183,520	1,266,915
1876	546	150,628	1,040,356	1,191,530
1877	260	76,006	1,126,498	1,202,764
1878	57	47,376	1,415,129	1,462,562
1879	503	56,430	1,032,214	1,089,147
1880	461	27,272	752,639	780,372
1881	3,237	24,753	588,922	616,912
1882	666	31,386	851,402	883,454
1883	159	20,085	843,971	864,215
1884	74	35,446	734,092	769,612
1885	3,099	26,900	723,523	753,522
1886	1,120	19,281	188,196	208,597
1887	487	19,565	23,092	43,144
1888	522	22,413*	53,738	76,673
Total	13,269	1,124,256	15,059,260†	16,196,785

Average size of selections.

400. Dividing the total number of acres selected by the total number of selectors, as shown in the last two tables, it is found that throughout the whole period of nineteen years the average number of acres taken up by each selector has been 143.

Selected land forfeited, 1888.

401. Of the land which had been selected in former years, 58,811 acres during 1888 were abandoned or forfeited to the Crown in consequence of non-fulfilment of conditions, resulting in a gain to the Treasury of £3,843.

Leases of grazing areas, 1888.

402. The present *Land Act* prescribes that anyone wishing to select for agricultural purposes must first acquire the lease of a grazing area.‡ The number of applications for such leases received in

* Including 2,389 acres sold by private contract.
† A large proportion of the land referred to in this column may revert, and, as a matter of fact, a considerable quantity has reverted, to the Crown in consequence of non-fulfilment of conditions, etc., and may subsequently be included in re-adjustments of selections, re-licensed, sold by auction, or retained by the Crown. "Gold-fields" selections are included in this column. See paragraph 387 ante.
‡ See paragraphs from 372 to 374 ante.

1888 was 4,271; but the number approved during that year was only 3,813, the extent for which approval was granted being 1,545,612 acres, at an annual rental of £16,100.

403. The number of lessees of "grazing areas" who made application during the year 1888 for the issue of licences of agricultural allotments (selections) was 323, for an area of 59,348 acres. The number of approved applications, however, was 296, and the area licensed 50,758 acres, as compared with 11,310 acres in 1887. The annual fees, which form part of the purchase-money, payable on these selections amount in the aggregate to £2,537 18s. Selections under the Land Act 1884.

404. Licensees of agricultural allotments (or selectors) under the *Land Acts* 1869 and 1884 are empowered to register licence liens for advances of money up to half the value of improvements effected. The number of such license liens registered, the extent of land on which such liens were granted, and the amount secured were as follow in the last three years:— Licence liens

LICENCE LIENS 1886 TO 1888.

Year.	Liens Registered.		
	Number.	Area on which Liens were granted.	Amount Secured.
		Acres.	£
1886	326	79,099	38,924
1887	305	68,968	34,634
1888	405	95,294	48,098

405. Under the present *Land Act* it was intended that the purely pastoral lands of the colony, the whole of which have been marked off as "pastoral allotments," should be occupied under lease for periods not exceeding fourteen years from the commencement of the Act. But it is provided, in case all the allotments should not be applied for, that temporary grazing licences, renewable annually, may be granted for the occupation of such lands and of unoccupied agricultural lands, so long as they may not be required for leasing under the principal sections of the Act. Moreover, agricultural lands, which are not occupied for agricultural purposes, are leased in grazing areas as already stated*; and auriferous lands, in blocks not exceeding 1,000 acres, may be licensed for grazing purposes for periods of five years. The following table shows the area of Crown Pastoral occupation, 1888.

* See paragraph 372 ante.

lands under the *Land Act* 1884, held under lease or licence for pastoral or grazing purposes at the end of 1888, also the number of leases and licences, and the annual rental payable :—

PASTORAL OCCUPATION, 1888.

(Under *Land Act* 1884.)

Description of Tenure.	Number of Licences or Leases.	Extent of Crown Lands.	Annual Rental.
		Acres.	£
Pastoral leases (sec. 21)	81	1,331,930	5,522
Grazing area leases (sec. 32)	8,706	3,445,802	20,608
Grazing licences (secs. 3 and 119)...	2,422	6,725,326	} 22,597
" " (auriferous lands, secs. 65 and 67)*	1,369	316,189	
Total	12,578	11,819,247	48,727

Average
area of runs
and grazing
rights.

406. By these figures it may be ascertained that the average extent of land embraced in a pastoral lease was 16,440 acres, in a grazing area lease 396 acres, and in a grazing licence (secs. 3 and 119) 2,777 acres. These areas are exclusive of those of any purchased land attached thereto.

Rent of runs
and grazing
rights.

407. According to the table, the average rent per acre of pastoral allotments was something less than a penny (·95d.), and of land held under grazing licence—generally of an inferior character to that embraced in pastoral allotments—about three-farthings (·77d.)

Assessment
of pastoral
lands.

408. The rental of pastoral lands (exclusive of agricultural lands used for pastoral purposes, and of the Mallee pastoral lands) available at the end of 1885, viz., 7,078,100 acres, was assessed in 1886 at £24,717 per annum. Since 1885, however, the area has been reduced by 309,300 acres, and it is contemplated to still further reduce it by about 500,000 acres. These deductions will naturally reduce the assessment referred to.

Mallee
pastoral
leases.

409. The Mallee country is, as already stated, subject to the provisions of a special Act.† It is divided into blocks and allotments. The number of leases and of lessees of these, together with their approximate area, and the annual rental payable therefor, are shown in the following table :—

* Including licences for residence or cultivation limited to 20 acres each. At the end of 1888, the number of these was 666, but the area only 12,595 acres.
† See paragraphs 367 to 369 *ante*.

MALLEE PASTORAL LEASES ON 31ST DECEMBER, 1888.

Description of Leaseholds.	Number of Leases.	Number of Lessees.	Area.	Annual Rental.*
Mallee blocks	55	29	Acres. 6,860,013	£ 2,270
„ allotments	913	893	2,389,706	4,226
Total	968	922	9,249,719	6,496

410. At the end of 1888, the following areas were still available for occupation in the Mallee country:—Mallee blocks, 1,072,000 acres; Mallee allotments, 215,642 acres.

Mallee areas still unoccupied, 1888.

411. In 1883, prior to the passing of the *Mallee Pastoral Leases Act*, the Mallee country was held under pastoral licences or grazing rights. The number of such licences and rights was 147, held by 58 individual occupiers; the area over which the right of occupation was given was 7,727,360 acres, and the annual rental payable was £8,076. From a comparison of these figures with those in the above table, it appears that since 1883, whilst the occupiers of the Mallee country have increased sixteen times, and the extent occupied by nearly one-fourth, the annual rental has fallen off by £1,600, or by 20 per cent. As a set-off against this reduced rental, however, it should be pointed out that the present lessees have to comply with certain conditions † to which the licensees under the former Act were not subject.‡

Past and present occupation of Mallee country.

412. According to the figures in the last table, the average rental per 100 acres payable for the Mallee country is 1s. 4½d., or 8d. for the Mallee blocks, and 3s. 6½d. for the Mallee allotments. In 1883, prior to the passing of the present Act, the average rental in the Mallee country was 2s. 1d. per 100 acres.

Average rental of Mallee country.

413. The revenue from the sale and occupation of Crown lands may be divided into—(1) receipts from the alienation of land in fee-simple, including the price realized from land sales and from rents which count towards the purchase-money; (2) receipts on account of temporary occupation, which include payments for pastoral leases and grazing licences, rents for business, factory, and hotel sites, etc., and rents of land which do not count towards the purchase-money; (3) penalties, interest, and fees for grants, leases, licences, etc. The gross

Land revenue.

* Approximate only. The amount actually received in 1888 was £5,328, viz., £1,574 for blocks, and £3,754 for allotments; but arrears are included in these figures.

† See paragraph 368 *ante*.

‡ Mallee lands may now be selected. See footnote to paragraph 369 *ante*.

receipts show a substantial increase of about £122,000, as compared with the previous year, which is distributed over the various heads of revenue, as will be seen by the following figures :—

LAND REVENUE, 1887 AND 1888.

Heads of Land Revenue.	Amounts Received.		Increase.
	1887.	1888.	
	£	£	£
Alienation in fee-simple and progressive ...	499,898	585,055	85,157
Temporary occupation ...	61,127	91,417	30,290
Penalties, fees, etc. ...	33,946	40,277	6,331
Total ...	594,971	716,749	121,778

Agricultural statistics.

414. The agricultural statistics of Victoria are collected by the municipal bodies, which, under the *Local Government Act* 1874 (38 Vict. No. 506), and the *Local Government Act Amendment Act* 1883 (47 Vict. No. 786), are required each year to furnish to the Government Statist, on or before the 1st March, such agricultural and other statistics relating to their districts on such forms and in such manner as the Governor in Council may direct. All persons are required to give correct information to the best of their knowledge and belief; and, should they fail to do so, they render themselves liable to a penalty not exceeding £10. Collectors divulging or making extracts from the information they receive, except under the special direction or authority of the Government Statist, also render themselves liable to a penalty of £10.

Bonuses for collecting statistics.

415. In assigning the duty of collecting statistics to the local bodies, the law did not provide that they should receive any payment therefor; and thus, although under that provision of the Act whereby the Governor in Council had power to prescribe the manner as well as the form of the statistics, elaborate instructions for the guidance of the persons employed had each year been supplied them, the Government had practically but little control over the work, and hence many of the returns were not sent in until long after the appointed time, and some were generally furnished in anything but a satisfactory condition. This being the case, it was decided by the Government—for the first time in 1883-4—to offer bonuses, ranging, according to the nature of the country, from £6 to £3 per 100 schedules collected, to such municipalities as should furnish authentic and complete returns punctually at the appointed time—the amount

to be reduced one-half if the returns were delayed for five days, three-quarters if they were delayed for ten days, and forfeited altogether if ten days should be exceeded. These bonuses have now been given for five years with excellent effect, as the measures taken have resulted in the statistics being sent in at such a date that it has become possible to publish nearly complete returns about the 12th March,* or fully two months earlier than such a result had been achieved in previous years.

416. The agricultural statistics to which reference will now be made are those for the year ended 1st March, 1889.† Tables embodying the final results of these statistics will be found in the *Government Gazette* of the 10th May last,* and these, with additional tables, form portion of the *Statistical Register of Victoria*. Agricultural statistics, 1888-9.

417. The total number of farm holdings visited in the year under notice was 35,727, of which 34,751 were in shires, and 976 in cities, towns, or boroughs. In the previous year the number of farms visited was 37,615, the falling-off being thus 1,888. In 1887-8 there was a falling-off of 601 farms, which was accounted for by the fact that on that occasion the collectors were, for the first time, told not to visit holdings on which there was no other cultivation than artificial grass; but on the present occasion the falling-off was no doubt due to the almost unparalleled drought which took place during the year, which led to the utter failure of all the crops on some of the farms. Such farms would probably be treated by the collectors as having no cultivation, and consequently would not appear in the returns. Number of cultivators.

418. The extent of land returned as under cultivation amounted to 2,564,742 acres, as against 2,576,405 acres in 1887-8. The decrease shown by the figures was, therefore, 11,663 acres. This apparent falling-off in the area of cultivated land was also doubtless due to the failure of crops in consequence of the drought. The collectors are told to take an account of the land placed under crop whether such crop fails or not, but in some instances the fact of a crop having been sown and failed is not reported to the collectors. Land under tillage.

419. The average area returned as in cultivation to each person in the colony was about $2\frac{1}{3}$ acres in the year under review as against nearly $2\frac{1}{2}$ acres five years previously, and nearly 2 acres 10 years Area cultivated per head of population

* This year tables containing a statement of the extent of land under crop, and yield of wheat, oats, potatoes, and hay, were published in the Melbourne daily journals of the 11th March.

† A summary of the agricultural statistics of each year, since the first settlement of the colony, is published at the commencement of this volume (second folding sheet).

previously. The exact proportions at the three periods were as follow :—

AVERAGE AREA CULTIVATED TO EACH PERSON IN THE COLONY.

					Acres.
1878-9	...	...	...	...	1·94
1883-4	...	...	...	...	2·40
1888-9	...	...	...	...	2·35

Area cultivated per head in Australasian colonies.

420. The following table shows the area per head cultivated in each Australasian colony during the nine seasons ended with that of 1887-8, also the mean of those seasons, the colonies being placed in order according to the average extent of land per head that each cultivates :—

CULTIVATION PER HEAD IN AUSTRALASIAN COLONIES, 1879 TO 1888.*

Colony.	Acres under Tillage per Head of Population.									
	1879-80.	1880-81.	1881-2.	1882-3.	1883-4.	1884-5.	1885-6.	1886-7.	1887-8.	Mean.
1. S. Australia† ...	8·75	9·62	8·91	8·08	9·05	8·91	...	...	...	8·89†
2. Tasmania ...	3·26	3·25	3·15	3·08	3·12	3·26	3·12	3·25	3·21	3·19
3. New Zealand...	2·67	2·12	2·63	2·68	2·61	2·39	2·20	2·33	2·39	2·45
4. Victoria ...	2·01	2·32	2·06	2·25	2·38	2·42	2·42	2·41	2·49	2·31
5. W. Australia...	2·28	2·20	1·78	1·84	1·94	2·42	2·19	2·18	2·49	2·15
6. N. S. Wales ...	·90	·96	·83	·90	·91	·92	·90	1·02	1·01	·93
7. Queensland ...	·49	·53	·56	·64	·58	·64	·66	·65	·56	·59

Results in different colonies compared.

421. It will be observed that South Australia cultivates much more, and New South Wales and Queensland cultivate much less, per head than any of the other colonies; also that over a series of years Victoria has in this respect occupied a middle place, being below South Australia, Tasmania, and New Zealand, but above the other three colonies, viz., Western Australia, New South Wales and Queensland. In the last four years, however, and in one previous year, Victoria, in proportion to population, has had more land in cultivation than New Zealand.

Land under principal crops.

422. The principal crops grown in Victoria are wheat, oats, barley, potatoes, hay, and green forage. In 1888-9, the area under wheat was less by 16,000 acres than in 1887-8, but was larger than in any previous year; the area under oats was less by 1,500 acres than in

* For the population and number of acres under tillage in each Australasian colony during the sixteen years ended with 1888, see Summary of Australasian Statistics (third folding sheet) ante; also Appendix A. post.

† The colony of South Australia has not collected agricultural statistics in the last three years, the mean is, therefore, for six years.

1887-8, but was exceeded in 1885-6 by 18,476 acres, it was, however, larger than in any other year; the area under potatoes was exceeded in 1887-8, 1886-7, and 1880-81, and that under hay was exceeded in the first two of those years and 1885-6, but in no other years; the area under barley was larger by 42,500 acres than that in 1887-8, and was also larger than in any other year; the area returned under green forage, although larger by 28,000 acres than that in 1887-8, was less than that returned in many previous years, but this is accounted for by the fact that in the last two years the collectors have been instructed not to visit holdings on which there was no other cultivated land than that laid down under permanent artificial grass, which is included under the head of green forage. The following table shows the extent of land under each of these crops in the last two seasons:—

LAND UNDER PRINCIPAL CROPS, 1888 AND 1889.

Year ended March.	Wheat.	Oats.	Barley.	Potatoes.	Hay.	Green Forage.
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
1888 ...	1,232,943	199,036	40,983	48,263	441,812	164,457
1889 ...	1,217,191	197,518	83,483	43,074	411,332	192,515
Increase ...	...	...	42,500	...	...	28,058
Decrease ...	15,752	1,518	...	5,189	30,480	...

423. The gross yield of wheat was less than that in 1887-8 by more than $4\frac{2}{3}$ million bushels, or over a third, and was also exceeded in every year since 1878-9; the yield of oats was less by $1\frac{3}{4}$ million bushels than in 1887-8, and was also less than in eleven other years; the yield of barley was larger than in 1887-8, and was also larger than in any other year except 1885-6; the yield of potatoes was less by more than a third, and that of hay was less by more than half that in the previous year; the former was also exceeded in eight, and the latter in five other years. The following is a statement of the gross produce of each of the principal crops in 1887-8 and 1888-9:—

GROSS PRODUCE OF PRINCIPAL CROPS, 1888 AND 1889.

Year ended March.	Wheat.	Oats.	Barley.	Potatoes.	Hay.
	Bushels.	Bushels.	Bushels.	Tons.	Tons.
1888 ...	13,328,765	4,562,530	956,476	198,225	624,122
1889 ...	8,647,709	2,803,800	1,131,427	131,149	308,117
Increase ...	...	...	174,951	...	...
Decrease ...	4,681,056	1,758,730	...	67,076	316,005

Area under
and pro-
duce of
wheat.

424. The following table shows the area under and gross produce of wheat in each county during the year ended 1st March, 1889, also the average produce of wheat per acre in each county during that year and the two preceding years:—

WHEAT IN EACH COUNTY.—AREA UNDER CROP AND GROSS AND AVERAGE PRODUCE.

Counties.	Year 1888-9.		Average Produce per Acre.		
	Area under Crop.	Gross Produce.	1888-9.	1887-8.	1886-7.
	Acres.	Bushels.	Bushels.	Bushels.	Bushels.
Anglesey	528	6,925	13·12	11·88	15·61
Benambra	1,433	24,376	17·01	13·57	23·65
Bendigo	61,759	450,376	7·29	12·84	11·97
Bogong	23,933	187,226	7·82	7·60	15·82
Borong	279,174	1,770,819	6·34	10·72	9·60
Bourke	288	5,640	19·58	18·17	15·82
Buln Buln	284	5,426	19·11	14·35	22·90
Croajingolong	57	740	12·98	7·64	5·95
Dalhousie	1,814	24,815	13·68	12·38	20·36
Dargo	69	980	14·20	22·77	35·88
Delatite	8,690	81,570	9·39	6·85	13·87
Dundas	5,310	85,983	16·19	16·64	20·55
Evelyn	17	304	17·88	6·83	17·10
Follett	679	9,841	14·49	14·89	13·26
Gladstone	76,398	454,202	5·95	12·37	10·82
Grant	1,561	24,396	15·63	16·29	20·10
Grenville	857	10,546	12·31	16·83	15·93
Gunbower	57,574	311,016	5·40	7·14	9·60
Hampden	432	5,839	13·52	17·26	19·07
Heytesbury	220	4,310	19·59	21·83	25·27
Kara Kara	118,937	790,525	6·65	10·94	6·26
Karkaroc	15,852	43,361	2·74	7·88	7·94
Lowan	206,677	1,697,170	8·21	10·39	11·09
Moir	225,603	1,870,978	8·29	10·91	14·79
Mornington	40	554	13·85	17·35	14·14
Normanby	2,401	38,555	16·06	15·33	21·45
Polwarth	112	2,187	19·53	23·01	26·60
Ripon	4,774	59,578	12·48	17·63	16·63
Rodney	69,989	455,328	6·51	12·17	13·49
Talbot	7,154	81,493	11·39	15·44	18·21
Tambo	122	1,570	12·87	9·70	27·65
Tanjil	2,242	16,762	7·48	10·41	29·77
Tatchera	39,854	75,048	1·88	9·02	7·86
Villiers	2,353	49,117	20·87	21·13	29·05
Wonnangatta	4	153	38·25	5·74	24·03
Total	1,217,191	8,647,709	7·10	10·81	11·49

Decreased
wheat yield
in ten
counties.

425. A reference to the table will show that eight million out of the eight million six hundred thousand bushels of wheat raised in Victoria in the year under notice were raised in ten counties, which,

for the most part, lie between the 36th and 37th parallels of south latitude, and which have been mentioned in previous issues of this work as, above all others, the wheat producing counties of Victoria. The effects of the drought of 1888 are specially marked by the falling-off of the wheat yield in these counties, in several of which the decrease has been more than half, and in one (Tatchera) it has been as much as four-fifths, the total decrease being more than a third. In the following table these counties are arranged in order, according to the yield of wheat in 1888-9; the falling-off, as compared with the previous year, being also shown:—

FALLING OFF OF YIELD IN TEN WHEAT PRODUCING COUNTIES,
1889.

Counties.	Bushels of Wheat Produced.		
	1887-8.	1888-9.	Decrease.
Moira	2,613,016	1,870,978	742,038
Borong	2,904,069	1,770,819	1,133,250
Lowan	1,871,930	1,697,170	174,760
Kara Kara	1,298,878	790,525	508,353
Rodney	950,982	455,328	495,654
Gladstone	952,891	454,202	498,689
Bendigo	857,446	450,376	407,070
Gunbower	484,256	311,016	173,240
Bogong	217,181	187,226	29,955
Tatchera	375,640	75,048	300,592
Total	12,526,289	8,062,688	4,463,601

426. As regards the acreable yield of wheat, it will be noticed that in 1888-9, taking the colony as a whole, it was about $3\frac{3}{4}$ bushels less than in 1887-8, and about $4\frac{1}{2}$ bushels less than in 1886-7. In the following counties, however, the yield per acre was greater in 1888-9 than in the previous year:—Anglesey, Benambra, Bogong, Bourke, Buln Buln, Croajingolong, Dalhousie, Delatite, Evelyn, Normanby, Tambo, and Wonnangatta; all these counties are situated in the southern or eastern portion of the colony, which was not affected so severely by the drought as the western and north-western portions.

Acreable
yield of
wheat.

427. It will be observed that in several of the counties in which the average yield of wheat is high a very small quantity is grown, which is probably raised on a patch of choice land, and does not afford an indication of the general productiveness of the county. Thus, in 1888-9 only 4 acres were placed under wheat in Wonnangatta, 17 in Evelyn, 40 in Mornington, 57 in Croajingolong, 69 in Dargo, 112 in Polwarth, 122 in Tambo, 220 in Heytesbury, 284 in Buln Buln,

Small gross
yield of
wheat in
some coun-
ties.

288 in Bourke, and 432 in Hampden. In all these counties the yield per acre was much above the average of the colony.

Area under
other prin-
cipal crops
in each

428. The following table gives a statement of the number of acres under oats, barley, potatoes, and hay, in each county during 1888-9 :—

OATS, BARLEY, POTATOES AND HAY IN EACH COUNTY.
AREA UNDER CROP.

Counties.	Area under Crop, 1888-9.			
	Oats.	Barley.	Potatoes.	Hay.
	Acres.	Acres.	Acres.	Acres.
Anglesey	1,849	169	476	2,473
Benambra	1,323	37	231	1,461
Bendigo	11,533	2,061	22	33,004
Bogong	7,584	599	473	11,058
Borong	3,081	1,618	48	45,599
Bourke	7,681	2,791	4,334	25,815
Buln Buln	3,151	76	2,781	3,292
Croagingolong	145	5	76	160
Dalhousie	16,130	782	3,193	11,750
Dargo	57	245	194	1,053
Delatite	9,768	154	852	7,354
Dundas	2,526	585	130	3,205
Evelyn	336	3	594	3,630
Follett	1,277	103	173	888
Gladstone	9,325	1,236	3	21,488
Grant	10,004	3,266	6,586	28,093
Grenville	5,426	3,048	798	9,860
Gunbower	3,310	1,564	2	14,818
Hampden	1,714	995	476	2,916
Heytesbury	2,001	285	1,321	1,685
Kara Kara	8,947	1,692	119	26,422
Karkarooc	144	64	5	1,949
Lowan	3,190	782	8	30,188
Moirā	25,299	36,086	44	29,143
Mornington	468	76	726	6,081
Normanby	2,652	380	784	4,113
Polwarth	1,931	2,461	2,043	2,357
Ripon	9,559	214	1,222	13,918
Rodney	15,411	12,261	...	12,353
Talbot	22,715	1,849	6,253	39,413
Tambo	60	35	83	407
Tanjil	2,989	3,279	755	4,116
Tatchera	551	321	1	4,913
Villiers	4,735	4,360	8,074	5,768
Wonnangatta	646	1	194	589
Total	197,518	83,483	43,074	411,332

Average
yield of
other prin-
cipal crops
in each
county.

429. By the next table, which shows the gross produce of oats, barley, potatoes, and hay in each county, it will be seen that in 1888-9 most oats was grown in Talbot, Dalhousie, and Moira, in the order

named; most barley in Moira and Villiers; most potatoes in Grant, Villiers, and Bourke; and most hay in Talbot, Grant, Borung, Lowan, and Bourke:—

OATS, BARLEY, POTATOES, AND HAY, IN EACH COUNTY.

GROSS PRODUCE.

Counties.	Gross Produce, 1888-9.			
	Oats.	Barley.	Potatoes.	Hay.
	Bushels.	Bushels.	Tons.	Tons.
Anglesey ...	32,889	3,513	1,193	2,480
Benambra ...	30,391	899	1,110	1,474
Bendigo ...	129,706	17,010	33	16,167
Bogong ...	107,995	7,198	1,523	7,311
Borong ...	38,227	13,454	130	25,274
Bourke ...	142,124	64,490	15,358	20,463
Buln Buln ...	65,906	1,606	12,569	5,229
Croajingolong ...	3,495	80	319	228
Dalhousie ...	288,805	13,092	9,413	11,467
Dargo ...	2,440	110	858	862
Delatite ...	125,293	3,304	2,117	6,016
Dundas ...	47,483	13,555	289	4,060
Evelyn ...	5,776	60	1,925	4,232
Follett ...	22,299	2,271	420	1,094
Gladstone ...	110,129	10,755	3	11,168
Grant ...	164,692	58,743	21,244	26,547
Grenville ...	88,961	59,989	1,896	8,360
Gunbower ...	39,182	17,107	2	7,076
Hampden ...	32,980	27,536	1,457	4,389
Heytesbury ...	34,948	9,262	3,604	1,858
Kara Kara ...	114,056	16,353	229	15,555
Karkarooc ...	688	464	10	448
Lowan ...	44,240	8,644	12	21,968
Moira ...	288,140	377,001	27	16,150
Mornington ...	8,786	1,639	3,256	5,071
Normanby ...	44,008	7,701	2,146	4,465
Polwarth ...	38,556	77,996	5,736	3,490
Ripon ...	160,113	4,265	2,146	16,165
Rodney ...	120,384	98,688	...	5,376
Talbot ...	338,506	29,811	16,604	39,945
Tambo ...	1,265	680	385	556
Tanjil ...	30,755	24,901	2,432	3,133
Tatchera ...	4,378	1,509	...	1,776
Villiers ...	84,748	157,711	21,908	7,598
Wonnangatta ...	11,456	30	795	666
Total...	2,803,800	1,131,427	131,149	308,117

430. The average produce per acre of oats, barley, potatoes, and hay in each county during the last two seasons is given in the following table:—

Average yield of other principal crops in each county.

AVERAGE PRODUCE OF OATS, BARLEY, POTATOES, AND HAY IN EACH COUNTY, 1887-8 AND 1888-9.

Counties.	Average Produce per Acre of—							
	Oats. (Bushels).		Barley. (Bushels).		Potatoes. (Tons).		Hay. (Tons).	
	1887-8.	1888-9.	1887-8.	1888-9.	1887-8.	1888-9.	1887-8.	1888-9.
Anglesey ...	18·40	17·79	24·00	20·79	3·46	2·51	1·61	1·00
Benambra ...	26·61	22·97	25·43	24·30	3·68	4·81	1·34	1·01
Bendigo ...	23·89	11·25	19·84	8·25	3·21	1·50	1·32	·49
Bogong ...	18·06	14·24	11·36	12·02	3·41	3·22	·98	·66
Borong ...	20·43	12·41	14·01	8·32	2·00	2·71	·93	·55
Bourke ...	27·40	18·50	29·54	23·11	4·45	3·54	1·80	·79
Buln Buln ...	21·73	20·92	19·70	21·13	5·23	4·52	1·78	1·59
Croajingolong	18·79	24·10	25·50	16·00	4·59	4·20	1·59	1·43
Dalhousie ...	23·57	17·90	22·17	16·74	3·07	2·95	1·52	·98
Dargo ...	28·31	42·81	25·49	·45	5·10	4·42	1·67	·82
Delatite ...	18·08	12·83	9·30	21·45	3·28	2·48	1·13	·82
Dundas ...	20·01	18·80	21·03	23·17	2·22	2·22	1·58	1·27
Evelyn ...	22·19	17·19	19·00	20·00	3·65	3·24	1·45	1·17
Follett ...	21·50	17·46	17·21	22·05	2·23	2·43	1·37	1·23
Gladstone ...	21·81	11·81	17·10	8·70	1·67	1·00	1·21	·52
Grant ...	29·16	16·46	30·42	17·99	4·24	3·23	1·86	·94
Grenville ...	27·10	16·40	33·16	19·68	3·03	2·38	1·68	·85
Gunbower ...	22·16	11·84	10·79	10·94	1·00	1·00	1·04	·48
Hampden ...	25·17	19·24	29·21	27·67	5·87	3·06	2·01	1·51
Heytesbury...	23·27	17·47	34·76	32·50	3·88	2·73	1·88	1·10
Kara Kara ...	19·39	12·75	12·25	9·66	2·38	1·92	1·03	·59
Karkaroc ...	19·24	4·78	22·67	7·25	...	2·00	1·14	·23
Lowan ...	18·47	13·87	17·33	11·05	4·17	1·50	·90	·73
Moir ...	19·74	11·39	18·50	10·45	2·68	·61	1·20	·55
Mornington...	22·00	18·77	24·30	21·57	5·06	4·48	1·45	·83
Normanby ...	18·69	16·59	21·47	20·27	3·16	2·74	1·53	1·09
Polwarth ...	26·45	19·97	37·55	31·69	4·76	2·81	2·06	1·48
Ripon ...	26·00	16·75	24·67	19·93	2·87	1·76	2·06	1·16
Rodney ...	19·03	7·81	21·04	8·05	·60	...	1·23	·44
Talbot ...	28·20	14·90	28·02	16·12	3·52	2·66	2·02	1·01
Tambo ...	30·47	21·08	24·67	19·43	4·83	4·64	1·55	1·37
Tanjil ...	14·28	10·29	29·32	7·59	4·52	3·22	1·52	·76
Tatchera ...	22·07	7·95	22·08	4·70	·65	...	·97	·36
Villiers ...	24·21	17·90	40·43	36·17	4·55	2·71	2·03	1·32
Wonnangatta	17·26	17·73	...	30·00	4·58	4·10	1·55	1·13
Total ...	22·92	14·20	23·34	13·55	4·11	3·04	1·41	·75

Yield of oats,
barley,
potatoes,
and hay,
1888-9.

431. It will be noticed that in the year ended 1st March, 1889, the highest acreable yield of oats was in Dargo, Croajingolong, Benambra, Tambo, and Buln Buln, in the order named; that the average yield of barley was highest in Villiers, Heytesbury, Polwarth, Wonnangatta, Hampden, and Benambra; that potatoes yielded the largest crop per acre in Benambra, Tambo, Buln Buln, Mornington, Dargo, Croajingolong, and Wonnangatta, where the average was over

4 tons; also that 3 tons per acre was exceeded in Bourke, Evelyn, Grant, Bogong, Tanjil, and Hampden; that the highest yields of hay were in Buln Buln, and Hampden, in which this crop averaged over $1\frac{1}{2}$ tons to the acre; and in Polwarth, Croajingolong, Tambo, Villiers, Dundas, Follett, Evelyn, Ripon, Wonnangatta, Heytesbury, Normanby, Benambra, and Talbot, in which it exceeded 1 ton to the acre.

432. Comparing the averages of 1888-9 with those of the previous season, a decrease is observed in the yield per acre of oats in all the counties except Croajingolong, Dargo, and Wonnangatta; of barley in all except Bogong, Buln Buln, Delatite, Dundas, Evelyn, Follett, Gunbower, and Wonnangatta; of potatoes in all except Benambra, Borung, Dundas, Follett, Gunbower, and Karkarooc; and of hay in every one of the counties.

433 In the past season, over the colony as a whole, the acreable yield of all the crops was below the average; the yield per acre of wheat, oats, barley, and hay, was lower than in any of the seventeen other years named in the following table; and that of potatoes was lower than in any of those years except 1881, 1879, and 1874 :—

AVERAGE PRODUCE OF PRINCIPAL CROPS, 1872 TO 1889.

Year ended March.	Average Produce per Acre of—				
	Wheat.	Oats.	Barley.	Potatoes.	Hay.
	Bushels.	Bushels.	Bushels.	Tons.	Tons.
1872	13·45	18·76	20·00	3·22	1·40
1873	16·51	19·55	20·86	3·45	1·32
1874	13·58	15·69	19·84	2·86	1·27
1875	14·57	18·46	21·01	3·53	1·32
1876	15·49	21·92	22·20	3·37	1·33
1877	13·15	19·91	21·18	3·31	1·22
1878	12·41	19·39	19·81	3·11	1·17
1879	8·76	17·60	18·24	2·71	1·21
1880	13·29	24·00	24·67	4·04	1·45
1881	9·95	17·62	15·57	2·81	1·20
1882	9·40	24·57	19·07	3·43	1·13
1883	9·03	26·17	17·35	3·78	1·06
1884	14·10	25·07	22·84	4·01	1·43
1885	9·52	23·40	17·38	4·16	1·09
1886	8·99	21·72	17·58	3·83	1·05
1887	11·49	22·91	22·36	3·41	1·09
1888	10·81	22·92	23·34	4·11	1·41
1889	7·10	14·20	13·55	3·04	·75
Mean	11·76	20·77	19·83	3·45	1·22

434. In the last five years the statistics of malting barley were distinguished from those of other descriptions of the same cereal.

Yield of other principal crops in past two seasons.

Yield of principal crops, 1872 to 1889.

Malting and other barley.

The following is the result of this division for the year under review:—

MALTING AND OTHER BARLEY, 1888-9.

Description of Barley.			Area under Crop.	Gross Produce.	Average per Acre.
			Acres.	Bushels.	Bushels.
Malting	...	...	63,118	721,420	11·43
Other	...	...	20,365	410,007	20·13
Total			83,483	1,131,427	13·55

Yield of
malting
smaller
than of
other
barley.

435. Of the total area under barley 76 per cent. was under malting barley; and of the produce of barley, 64 per cent. was of malting barley. In the previous year these proportions were respectively 70 per cent. and 63 per cent. It will be noticed that this description of barley is by far the less prolific of the two kinds, the average in 1888-9 being only 11½ bushels to the acre, as against 20 bushels of the other barley.

Average
produce in
Austral-
asian
colonies.

436. In the following table the average yield of wheat, oats, barley, potatoes, and hay in Victoria is placed side by side with the average of the same crops in the other Australasian colonies* during each of the sixteen years ended with 1888:—

AVERAGE PRODUCE PER ACRE OF THE PRINCIPAL CROPS IN AUSTRALASIAN COLONIES, 1873 TO 1888.

Year ended March.	Victoria.	New South Wales.	Queens- land.*	South Australia.*	Western Australia.	Tasmania.	New Zealand.
WHEAT.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1873	16·51	16·32	...	11·50	6·02	18·62	24·19
1874	13·58	13·43	...	7·87	13·44	16·17	25·61
1875	14·57	12·87	...	11·75	12·00	18·51	28·15
1876	15·49	14·66	...	11·95	11·00	16·38	31·54
1877	13·15	16·43	...	5·40	12·00	19·30	28·63
1878	12·41	13·84	10·63	7·76	11·00	18·12	26·03
1879	8·76	14·74	13·56	7·15	9·97	16·10	22·94
1880	13·29	15·48	8·11	9·78	14·94	23·22	28·16
1881	9·95	14·69	20·40	4·96	14·94	14·99	25·07
1882	9·40	15·35	8·41	4·57	7·00	18·88	22·69
1883	9·03	16·35	13·89	4·21	11·00	20·27	26·28
1884	14·10	15·00	4·34	7·94	13·00	17·74	26·02
1885	9·52	15·27	16·17	7·53	13·00	19·20	25·43
1886	8·99	10·32	5·11	...	11·50	17·32	24·40
1887	11·49	17·38	3·13	...	12·00	17·91	24·89
1888	10·81	12·06	22·10	...	9·14	16·67	26·37
Mean	11·95	14·64	11·44	7·87	11·37	18·09	26·02

* The produce of crops in Queensland was not given prior to 1878. No agricultural statistics have been collected in South Australia in the last three years.

**AVERAGE PRODUCE PER ACRE OF THE PRINCIPAL CROPS IN
AUSTRALASIAN COLONIES, 1873 TO 1888—continued.**

Year ended March.	Victoria.	New South Wales.	Queens- land.*	South Australia.*	Western Australia.	Tasmania.	New Zealand.
OATS.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1873 ...	19·55	19·94	...	16·39	13·24	25·85	27·00
1874 ...	15·69	18·71	...	10·61	19·22	20·98	29·81
1875 ...	18·46	16·31	...	14·61	16·00	26·82	35·22
1876 ...	21·92	18·72	...	16·69	15·00	25·40	37·79
1877 ...	19·91	21·16	...	10·65	15·00	24·21	31·24
1878 ...	19·39	19·31	10·11	11·96	14·00	22·32	31·68
1879 ...	17·60	20·24	9·65	12·01	18·02	24·82	30·11
1880 ...	24·00	21·64	24·74	15·02	19·00	28·61	36·53
1881 ...	17·62	19·87	17·94	11·50	19·00	22·13	32·05
1882 ...	24·57	21·81	12·74	10·66	10·00	28·44	28·45
1883 ...	26·17	24·88	16·58	11·13	15·00	27·34	32·89
1884 ...	25·07	21·15	8·90	14·65	17·00	27·39	35·11
1885 ...	23·40	21·87	15·17	12·20	18·00	28·65	34·84
1886 ...	21·72	19·77	4·84	...	14·50	26·82	26·11
1887 ...	22·91	25·09	10·42	...	16·14	25·95	30·92
1888 ...	22·92	20·35	24·26	...	15·05	18·20	31·24
Mean ...	21·31	20·68	14·12	12·93	15·89	25·25	31·94
BARLEY.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.	Bushels.
1873 ...	20·86	18·96	...	14·31	14·00	22·44	21·25
1874 ...	19·84	18·61	...	10·69	17·22	19·33	27·41
1875 ...	21·01	17·33	...	15·18	16·00	24·46	29·39
1876 ...	22·20	20·46	...	14·12	14·00	27·84	35·91
1877 ...	21·18	23·69	...	10·64	15·00	23·58	28·95
1878 ...	19·81	19·68	16·86	11·97	13·00	20·28	25·40
1879 ...	18·24	21·47	15·87	11·82	12·23	24·22	24·77
1880 ...	24·67	21·46	24·68	13·38	18·00	27·91	30·47
1881 ...	15·57	20·35	20·97	11·62	18·00	20·39	26·05
1882 ...	19·07	21·04	12·53	11·47	10·00	22·29	22·28
1883 ...	17·35	20·55	17·82	11·03	14·00	27·79	26·19
1884 ...	22·84	20·96	13·24	14·01	16·00	25·57	29·31
1885 ...	17·38	21·16	24·73	13·48	16·50	29·58	30·37
1886 ...	17·58	16·16	24·20	...	14·50	25·83	25·92
1887 ...	22·36	21·87	24·07	...	15·97	22·40	25·94
1888 ...	23·34	19·20	27·03	...	11·75	13·87	27·26
Mean ...	20·21	20·18	20·18	12·59	14·76	23·61	27·30
POTATOES.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1873 ...	3·45	2·98	...	3·28	2·34	3·92	4·92
1874 ...	2·86	2·98	...	3·41	2·67	3·16	4·46
1875 ...	3·53	2·83	...	3·72	3·00	3·75	5·24
1876 ...	3·37	2·98	...	4·52	3·00	3·54	4·89
1877 ...	3·31	3·03	...	2·84	3·00	3·43	5·36
1878 ...	3·11	2·52	1·91	2·51	2·00	3·25	5·38
1879 ...	2·71	3·20	2·33	2·67	2·49	3·37	4·98

* The produce of crops in Queensland was not given prior to 1878. No agricultural statistics have been collected in South Australia in the last three years.

AVERAGE PRODUCE PER ACRE OF THE PRINCIPAL CROPS IN
AUSTRALASIAN COLONIES, 1873 TO 1888.—*continued.*

Year ended March.	Victoria.	New South Wales.	Queens- land.*	South Australia.*	Western Australia.	Tasmania.	New Zealand.
POTATOES.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1880 ...	4·04	3·23	3·03	3·80	3·50	3·18	5·62
1881 ...	2·81	2·73	2·65	2·89	3·50	3·12	4·94
1882 ...	3·43	2·78	2·36	2·96	2·00	3·47	5·41
1883 ...	3·78	3·00	2·90	3·05	2·50	3·88	5·10
1884 ...	4·01	2·47	2·60	4·22	3·00	3·59	5·36
1885 ...	4·16	2·52	2·92	4·10	3·00	4·37	5·78
1886 ...	3·83	2·55	2·82	...	2·50	4·83	4·58
1887 ...	3·41	2·64	3·74	...	3·01	4·71	4·88
1888 ...	4·11	2·94	3·52	...	2·38	2·59	5·45
Mean ...	3·50	2·84	2·80	3·38	2·75	3·63	5·15

HAY.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.	Tons.
1873 ...	1·32	1·61	...	1·21	1·51	1·39	1·25
1874 ...	1·27	1·54	...	1·02	2·00	1·08	1·43
1875 ...	1·32	1·37	...	1·26	1·50	1·35	·84
1876 ...	1·33	1·15	...	1·21	1·00	1·42	1·46
1877 ...	1·22	1·43	...	1·95	1·00	1·21	1·31
1878 ...	1·17	1·22	1·30	1·13	1·00	1·13	1·30
1879 ...	1·21	1·66	1·33	·97	1·00	1·19	1·22
1880 ...	1·45	1·45	1·96	1·12	1·25	1·52	1·51
1881 ...	1·20	1·33	1·95	·96	1·25	1·13	1·27
1882 ...	1·13	1·35	1·16	·72	·75	1·29	1·30
1883 ...	1·06	1·35	1·67	·75	1·00	1·30	1·24
1884 ...	1·43	1·28	1·39	1·06	1·00	1·29	1·39
1885 ...	1·09	1·24	1·40	·93	1·00	1·24	1·41
1886 ...	1·05	·88	1·06	...	1·00	1·24	1·14
1887 ...	1·09	1·57	1·92	...	1·00	1·06	1·36
1888 ...	1·41	1·35	2·02	..	·94	1·14	1·49
Mean ...	1·23	1·36	1·56	1·10	1·14	1·25	1·31

NOTE.—All the calculations in this table were made in the office of the Government Statist, Melbourne. For the land under and total produce of each crop in the respective colonies during the seventeen years ended with 1888-9, see Summary of Australasian Statistics (third folding sheet) *ante*; and for average yields per acre in 1888-9, see Table XVI. of Appendix A. *post*.

Colonies
with highest
and lowest
average
yields.

437. It will be observed that, according to the mean of the whole period, the average produce of wheat, oats, barley, and potatoes is much the highest in New Zealand, and that of hay is highest in Queensland. The lowest average yield of wheat, oats, barley, and hay is in South Australia; and the yield of potatoes is lowest in Western Australia. Victoria stands third in regard to the average per acre of

* The produce of crops in Queensland was not given prior to 1878. No agricultural statistics have been collected in South Australia in the last three years.

oats, barley, and potatoes, fourth in regard to wheat, and fifth in regard to hay.

438. It will further be noticed that in 1887-8 the average produce of oats, barley, potatoes, and hay in Victoria was above the mean of the sixteen years to which reference is made; which was also the case in respect to potatoes in New South Wales; all the crops in Queensland; and wheat, potatoes, and hay in New Zealand; on the other hand, all the crops in Western Australia and Tasmania were below the average.

Average produce 1887-8 and previous years compared.

439. The next table shows the acreage under various crops in the United Kingdom, Australasia, British North America, the Cape of Good Hope, the principal countries on the continent of Europe and the United States of America. All the information has been taken from official documents:—

Land under crop in British and Foreign countries.

LAND UNDER CERTAIN CROPS IN SOME BRITISH AND FOREIGN COUNTRIES (000's OMITTED).

Country.	Year.	Number of Acres under—				
		Wheat.	Oats.	Barley.	Rye.	Potatoes.
The United Kingdom ...	1888	2,663,	4,163,	2,257,	89,	1,395,
Australasia ...	1887-8	4,008,	586,	100,	...	126,
Canada—						
Ontario ...	1887	1,383,	1,682,	767,	...	140,
Quebec, Nova Scotia, and New Brunswick	1881	311,	...	...	...	235,
Manitoba ...	1887	432,	155,	56,	...	11,
Prince Edward Island, British Columbia, and the Territories ...	1885	67,	35,	12,	...	4,
Cape of Good Hope ...	1875	188,	115,	29,	...	9,
Austria ...	1886	2,900,	4,614,	2,761,	4,985,*	2,693,
Belgium ...	1883	811,	616,	99,	686,	492,
Denmark ...	1881	138,	991,	781,	660,	110,
France ...	1886	17,182,*	9,228,	2,338,	4,037,	3,614,
Germany ...	1887	4,742,	9,411,	4,276,	14,430,	7,208,
Holland ...	1885	209,	283,	123,	504,	350,
Hungary ...	1887	6,858,	2,583,	2,480,	2,773,	1,020,
Italy ...	1883	11,700,	1,100,	856,	397,	173,
Norway ...	1875	11,	224,	138,	37,	86,
Russia in Europe ...	1881	28,947,	34,890,	12,454,	64,609,	3,713,
Sweden ...	1886	1,079,†	2,647,‡	...	...	392,
United States ...	1886-7	37,642,	25,921,	2,653,	2,130,	2,287,

* Including spelt (*Triticum spelta*).

† Including also rye.

‡ Including also barley and mixed corn.

Gross yield
of crops in
British and
Foreign
countries.

440. The official returns of the various countries contain statements of produce, and these are given in the following table. The produce of potatoes is not returned in tons, as in the Australasian colonies, but in bushels :—

GROSS PRODUCE OF CERTAIN CROPS IN SOME BRITISH AND FOREIGN COUNTRIES (000's OMITTED).

Country.	Year.	Number of Bushels * of—				
		Wheat.	Oats.	Barley.	Rye.	Potatoes.
The United Kingdom ...	1888	74,493,	157,976,	74,546,	...	223,293,
Australasia ...	1887-8	47,588,	15,982,	2,167,	...	19,811,
Canada—						
Ontario ...	1887	20,074,	49,848,	17,135,	...	10,678,
Quebec, Nova Scotia, and New Brunswick	1881	3,070,	25,161,	2,064,	...	29,213,
Manitoba ...	1887	12,352,	7,265,	1,925,	...	2,640,
Prince Edward Island, British Columbia, and the Territories	1885	1,147,	1,046,	257,	...	480,
Cape of Good Hope ...	1887	3,820,	1,240,	766,	...	743,
Austria ...	1886	43,267,	109,258,	51,611,	74,369,†	323,373,
Belgium ...	1886	16,572,	28,390,	3,568,	14,950,	119,810,
Denmark ...	1887	5,799,	29,444,	22,113,	16,065,	14,563,
France ...	1886	295,039,†	245,544,	49,206,	62,178,	444,254,
Germany ...	1887	103,985,	237,008,	97,219,	281,042,	994,673,
Holland ...	1885	6,139,	12,636,	5,306,	11,216,	65,810,
Hungary ...	1887	141,407,	59,599,	53,998,	49,714,	89,657,
Italy ...	1886	109,449,	14,353,	8,674,	4,119,	27,723,
Norway ...	1875	276,	8,896,	4,285,	1,016,	19,591,
Russia in Europe ...	1887	269,085,	599,420,	162,498,	721,247,	305,224,
Sweden ...	1887	4,192,	54,785,	14,699,	21,720,	59,171,
United States ...	1886-7	442,387,	639,465,	57,612,	23,741,	162,917,

Average
yield of
wheat in
United
Kingdom.

441. Until 1884 no official return was made of the produce of crops in the United Kingdom. Estimates more or less reliable have frequently been made by private persons, especially of the wheat yield. The London *Statist's* Annual Supplement of the 31st January, 1885, gives a statement originally taken from *The Times*, and evidently prepared with great care, of the assumed yield per acre of this crop in the eighteen years ended with 1883, and this has been supplemented by the official figures for the five years ended with 1888,

* The produce was originally given in Imperial bushels, except in the case of Germany, where it was stated in cwts., and the United States in Winchester bushels. Moreover, the potato crop of Belgium, France, and Italy was stated in cwts., and that of Australasia in tons. All these have been converted into Imperial bushels upon the assumption that 60 lbs. of wheat, 40 lbs. of oats, 50 lbs. of barley or rye, and 56 lbs. of potatoes are in each case equal to an Imperial bushel ; also that a Winchester bushel is equivalent to '969,447 of an Imperial bushel.

† Including also spelt (*Triticum spelta*).

published by the Agricultural Department of the Privy Council Office* :—

AVERAGE PRODUCE PER ACRE OF WHEAT IN THE UNITED KINGDOM, 1866 TO 1888.

Bushels per Acre.			Bushels per Acre.		
1866	...	27	1878	...	30
1867	...	25	1879	...	18
1868	...	34	1880	...	26
1869	...	27	1881	...	27
1870	...	32	1882	...	28
1871	...	27	1883	...	26
1872	...	23	1884	...	30
1873	...	25	1885	...	31
1874	...	31	1886	...	27
1875	...	23	1887	...	32
1876	...	27	1888	...	28
1877	...	22			

442. The average produce in the 23 years was within a fraction of 27 bushels per acre, which is much above the yield in any of the Australasian colonies except New Zealand. The yield in 1888 (28 bushels to the acre) was, it will be observed, exceeded in seven previous seasons.

Wheat yield
in United
Kingdom
and colonies

443. The acreable produce during several years in the countries named in a previous table has been calculated in the office of the Government Statist, Melbourne, and is given in the following table:—

Average
yield of
crops in
British and
Foreign
countries.

AVERAGE PRODUCE PER ACRE OF SOME BRITISH AND FOREIGN COUNTRIES.

Country.	Bushels† per Acre of—				
	Wheat.	Oats.	Barley.	Rye.	Potatoes.
The United Kingdom	28·0	38·0	33·0	...	160·0
Australasia	11·9	27·3	21·7	...	157·6
Canada—					
Ontario	14·5	29·6	22·3	...	76·2
Quebec, Nova Scotia, and					
New Brunswick	9·9	...	...	...	124·3
Manitoba	28·6	46·9	34·4	...	240·0
Prince Edward Island,					
British Columbia, and					
the Territories...	17·1	29·9	21·4	...	120·0
Cape of Good Hope‡	9·0	8·1	15·4	...	41·2

* *Agricultural Produce Statistics*, 1888. Eyre and Spottiswoode, London.

† See footnote (*) to table following paragraph 440 *ante*.

‡ The averages in this case relate to the year 1875.

AVERAGE PRODUCE PER ACRE OF SOME BRITISH AND FOREIGN
COUNTRIES—*continued*.

Country.	Bushels * per Acre of—				
	Wheat.	Oats.	Barley.	Rye.	Potatoes.
Austria	14·9	23·7	18·7	14·9	120·1
Belgium	20·4	46·1	36·0	21·8	243·5
Denmark	42·0	29·7	28·3	24·3	132·4
France	17·2	26·6	21·0	15·4	122·9
Germany	21·9	25·2	22·7	19·5	138·0
Holland	29·4	44·7	43·1	22·3	188·0
Hungary	20·6	23·1	21·8	17·9	87·9
Italy	9·2	13·0	10·1	10·4	160·2
Norway	25·1	39·7	31·0	27·5	227·8
Russia in Europe	9·3	17·2	13·0	11·2	82·2
United States	11·8	24·7	21·7	11·1	71·2

Yield of
wheat in
Foreign
countries
and Aus-
tralasia.

444. It will be observed that the yield of wheat per acre was 42 bushels in Denmark, 29 bushels in Holland and Manitoba, 28 bushels in the United Kingdom, 25 bushels in Norway, 22 bushels in Germany, 21 bushels in Hungary, 20 bushels in Belgium, 17 bushels in France and British Columbia, 15 bushels in Austria, and 14½ bushels in Ontario, all of which were above the average of Australasia; but the wheat yields of the United States (slightly), Quebec, the Cape of Good Hope, Italy, and European Russia were below the average of that group of colonies.

Yield of oats,
barley, and
potatoes in
Foreign
countries
and Aus-
tralasia.

445. According to the figures, the yield per acre of oats is higher in Australasia than in the Cape of Good Hope, Austria, France, Germany, Hungary, Italy, European Russia, or the United States, but lower than in any other of the countries named. The yield of potatoes in Australasia is above that in any of the other countries named except the United Kingdom, Manitoba, Belgium, Holland, Italy, and Norway.

Wheat crop
of the
world.

446. The following table contains a statement of the wheat crop of various countries in 1888, and the estimated wheat crop in the same countries in 1889. The former has been taken from a report by the Honorable J. R. Dodge, Statistician to the Department of Agriculture at Washington, United States, and the latter from an estimate made by Professor Grandeau, and published in an important paper read by him before the Association of French Millers, at the International Congress of millers, recently held in Paris:—

* See footnote (*) to table following paragraph 440 *ante*.

WHEAT CROP OF THE WORLD, 1888 AND 1889.
(000's OMITTED).

Countries.					Bushels.	
					1888.	1889. (Estimated.)
EUROPE.						
Austria	...	...	...	...	51,075, }	136,675,
Hungary	...	...	...	...	131,747, }	
Belgium	...	...	...	...	14,876,	15,125,
Bulgaria	...	...	...	...	...	26,400,
Denmark	...	...	...	...	4,824,	4,675,
France	...	...	...	...	273,620,	276,925,
Germany	...	...	...	...	101,000,	101,200,
Great Britain and Ireland	...	...	...	...	76,761,	90,475,
Greece	...	...	...	...	4,824,	6,875,
Italy ...	...	...	...	...	106,079,	140,250,
Netherlands	...	...	...	...	4,256,	5,500,
Portugal	...	...	...	...	7,094,	9,350,
Roumania	...	...	...	...	51,075,	32,725,
Russia	...	...	...	...	254,619,	258,500,
Servia	...	...	...	...	4,540,	3,850,
Spain ...	...	...	...	...	101,157,	167,750,
Sweden	...	...	...	...	4,256, }	6,050,
Norway	...	...	...	...	312, }	
Switzerland	...	...	...	...	1,702,	1,925,
Turkey	...	...	...	...	42,562,	23,375,
ASIA.						
Asia Minor	...	...	...	...	38,306,	...
India ...	...	...	...	...	266,882,	264,825,
Japan	...	...	...	...	...	41,250,
Persia	...	...	...	...	22,700,	...
Syria	...	...	...	...	14,188,	...
South-east Asia	...	...	...	...	8,512,	...
AFRICA.						
Algeria	...	...	...	...	19,863,	38,500,
Cape of Good Hope	...	...	...	...	3,820,	...
Egypt	...	...	...	...	14,188,	6,600,
AMERICA.						
Canada	...	...	...	...	32,000,	36,300,
Chili and Argentine Republic	...	...	...	...	28,375,	44,000,
United States	...	...	...	...	415,868,	512,600,
Australasia	...	...	...	...	47,588,*	26,206,*
Total	...	...	...	...	2,152,669,	2,277,906,

447. Supposing these figures to be correct, and the wheat to be worth four shillings per bushel, the total value of the world's wheat

Value of
world's
wheat crop.

* These figures differ slightly from those of Messrs. Dodge and Grandean.

crop would be over four hundred and thirty millions sterling in 1888, and over four hundred and fifty-five millions sterling in 1889.

Experi-
men-
tal farm,
Dookie.

448. In order to carry out experiments, devised for the purpose of ascertaining the suitability of the Victorian climate and soil for various kinds of useful products, and of obtaining data respecting the rotation of crops, as well as for the instruction of students in agriculture, a block of 4,806 acres, subsequently increased by 40 acres, was reserved in 1874 at Dookie, situated in Moira, a county in the North-eastern district of Victoria, on which to found a Government Experimental Farm; but it was not until April, 1877, that the fencing-in of the land was commenced, after which, in May, 1878, a tender for grubbing, burning-off, and ploughing was accepted. The existence of the farm, however, really dates from November, 1878, when a manager was appointed, and live stock was placed on the land; and in the following April the first crop of wheat was sown (on about 40 acres), which was harvested in due course in the December and January following—producing an average of 40 bushels per acre. Besides this, 20 acres were laid out with experimental crops, and a further area was placed under green stuff. By April, 1881, 430 acres had been grubbed and cleared, of which 250 acres had been broken up under the plough, and about 30 acres had been planted with vines, olives, oranges, citrons, limes, figs, and other fruit trees; whilst the experimental grounds already alluded to had been divided into plots of one-tenth of an acre each, on which a series of experiments in rotation cropping, various systems of manuring, etc., had been commenced. The following account of the present state of the farm has been furnished for this work by Mr. D. Martin, Secretary for Agriculture:—

The farm has, under the provisions of the *Agricultural Colleges Act* 1884, been vested in trustees, and all moneys received from the sale of stock and produce since June, 1885, have been paid into the Agricultural College Fund.

The total receipts for the year 1888 were £1,775 7s. 10d., and the expenditure £2,742 16s. 10d. Of the amount expended, £894 5s. 8d. was expended for live stock, and £392 10s. 2d. for implements, ironmongery, building materials, etc.

So far as was possible, the provisions necessary for the students at the Agricultural College and the staff thereof, were obtained from the farm.

Since the erection of the new dairy, and the use of the De Laval Cream Separator, there has been no trouble in obtaining a sufficient supply of good butter. The farm is now fairly equipped as regards implements and machinery.

The year 1888 was very dry, only 14·51 inches of rain having fallen at the farm, still the crops were fairly good.

40 acres	Ensilage	...	...	yielded	252 tons.
4)	"	Hay	...	"	60 "
40	"	Chevalier barley	...	"	25 bus. per acre.
80	"	Champlain hybrid wheat	...	"	13 " "
70	"	Purple straw wheat	...	"	15 " "
26	"	Steinwedel early prolific wheat	...	"	30 " "
10	"	White Tuscan wheat	...	"	18 " "
18	"	" " " (on old land)	...	"	12 " "
40	"	Port McDonnell wheat	...	"	15 " "
4	"	White Essex wheat	...	"	10 " "
10	"	Rattling Tom	...	"	14 " "
3	"	Twenty weeks	...	"	8 " "
3	"	Mexican	...	"	8 " "
12	"	Algerian oats	...	"	36 " "
8	"	Potato	...	"	18 " "

Numerous experiments were conducted with varieties of wheat, barley and oats, grasses, clovers, sorghums, millets, mangolds, beets, turnips, etc.

Various manures were tested at their monetary value, as compared with stable, cow, pig, and sheep manure; also various methods of putting a crop of wheat in and sowing at different depths, and quantities of seed per acre.

The vintage of 1888 was not as good as that of 1887. The new vineyard and other plantations, considering the dryness of the season, have done well.

The valuation of the farm and its belongings at the end of 1888 was as follows:—

Farm and improvements	...	...	...	£20,682	5	0
Buildings	...	...	...	1,892	0	0
Horse stock	...	...	...	631	10	0
Shorthorn cattle	...	...	...	500	5	0
Hereford cattle	...	...	...	280	0	0
Common cattle	...	...	...	438	0	0
Ayrshire cattle	...	...	...	92	10	0
Pigs	...	...	...	228	16	3
Sheep	...	...	...	596	1	0
Implements and machinery	...	...	...	1,255	10	0
Bees	...	...	...	40	0	0
Wine, etc.	...	...	...	395	17	0
Furniture, etc., men's quarters, etc., etc.	...	...	...	85	14	6
Dairy	...	...	...	89	12	6
Total	...	...	...	£27,208	1	3

449. An Act for the establishment of Agricultural Colleges* was passed towards the close of 1884. The following particulars respecting this Act and its operations have been supplied by Mr. D. Martin, the Secretary for Agriculture:—

Agricultural colleges.

This Act provides for the permanent reservation from sale of 150,000 acres of Crown lands by way of endowment of State Agricultural Colleges and Experimental Farms, which, together with other lands reserved as sites for such institutions prior to the passing of the Act, are to be vested in three trustees to be appointed by the Governor in Council. The Act also provides for the appointment

* The *Agricultural Colleges Act* 1884 (48 Vict. No. 825).

of a Council of Agricultural Education, consisting of eleven members, three of whom are to be the trustees just mentioned, one to be the Secretary for Agriculture (who is to be the treasurer of the council) five to be elected annually by the governing bodies of Agricultural Societies in Victoria, and two to be appointed by the Governor in Council. The trustees, subject to regulations made by the Council of Agricultural Education, may lease lands for building purposes for periods not exceeding 33 years, and for other purposes for periods not exceeding 14 years, and upon a requisition of the same council may dedicate, as sites for Agricultural Colleges and Experimental Farms, any lands purchased by them or described in the Act. All moneys received by the council from the sale of stock or farm produce, or as fees from students at Agricultural Colleges and Experimental Farms, together with all other money coming to the council, are to form a fund to be called the Agricultural College Fund, which is to be expended in providing instruction for students, or in purchasing stock, seed, agricultural implements, and all other necessities for the education of the students and the proper working of the Experimental Farms, etc. The council, subject to Ministerial approval, have the appointment of professors, teachers, officers, and servants for the Colleges and Experimental Farms. Most of the proceedings of the trustees and of the council have to be approved by the Governor in Council before coming into effect. The Act was amended in 1885,* so as to provide for five members being elected by members of Agricultural Societies in lieu of by the governing bodies of such societies; also for the elections to be held once in every three years, instead of being held annually.

Of the land intended as endowment, 124,339 acres have been reserved and vested in the trustees, and 119,800 acres of the land so vested have been leased for agricultural and grazing purposes. The total of the annual rents payable amount to £5,150 16s. 1d. The areas reserved under section 4 of Act No. 825, as sites for Colleges and Experimental Farms, amounted to 13,393 acres.

The first school was erected on the Dookie Experimental Farm Reserve. The buildings comprise lecture hall, dining hall, class rooms, teachers' quarters, sleeping accommodation for forty pupils, baths, out offices, etc. The school was opened on the 1st October, 1886, with the full number of pupils for which there is accommodation.

The course of instruction comprises chemistry, botany, entomology, geology, advanced English, arithmetic, mensuration, surveying, book-keeping, practical work on the farm, instruction in field operations, the use of farm implements and machinery, and the management of live stock.

No fee is charged for instruction, but a payment of £25 per annum has to be made for each pupil to cover the cost of maintenance.

A second school has been erected on the Longerenong Experimental Farm Reserve near Horsham, and was opened on the 1st March, 1889. It contains accommodation for thirty-five students, and that number has been admitted. The course of instruction is the same as at Dookie.

Breadstuffs
available
for con-
sumption.

450. The following table shows, for 1840 and each subsequent year, the quantity of wheat grown in Victoria, and the quantity of wheat, flour and biscuit imported after deducting exports, or exported after deducting imports; also the residue of breadstuffs left for consumption during each of those years:—

* By the *Agricultural Colleges Act* 1885 (49 Vict. No. 871).

BREADSTUFFS AVAILABLE FOR CONSUMPTION, 1840 TO 1888.

Year.	Wheat grown in Victoria.	Wheat, Flour, and Biscuit.*		
		Imported after deducting Exports.	Exported after deducting Imports.	Available for Consumption.
	Bushels.	Bushels.	Bushels.	Bushels.
1840	12,600	57,771	...	70,371
1841	50,420	116,350	...	166,770
1842	47,840	119,004	...	166,844
1843	55,360	58,616	...	113,976
1844	104,040	98,581	...	202,621
1845	138,436	74,699	...	213,135
1846	234,734	43,928	...	278,662
1847	345,946	36,871	...	382,817
1848	349,730	64,726	...	414,456
1849	410,220	76,092	...	486,312
1850	525,190	55,564	...	580,754
1851	556,167	216,811	...	772,978
1852	733,321	1,208,006	...	1,941,327
1853	498,704	1,499,994	...	1,998,698
1854	154,202	1,385,465	...	1,539,667
1855	250,091	1,985,496	...	2,235,587
1856	1,148,011	2,236,406	...	3,384,417
1857	1,858,756	1,958,905	...	3,817,661
1858	1,808,439	1,504,760	...	3,313,199
1859	1,563,113	1,957,610	...	3,520,723
1860	2,296,157	1,565,423	...	3,861,580
1861	3,459,914	1,522,517	...	4,982,431
1862	3,607,727	183,106	...	3,790,833
1863	3,008,487	191,107	...	3,199,594
1864	1,338,762	1,868,990	...	3,207,752
1865	1,899,378	1,800,932	...	3,700,310
1866	3,514,227	1,754,699	...	5,268,926
1867	4,641,205	15,190	...	4,656,395
1868	3,411,663	162,038	...	3,573,701
1869	4,229,228	719,589	...	4,948,817
1870	5,697,056	...	95,654	5,601,402
1871	2,870,409	1,179,583	...	4,049,992
1872	4,500,795	389,963	...	4,890,758
1873	5,391,104	...	138,088	5,253,016
1874	4,752,289	...	40,714	4,711,575
1875	4,850,165	200,369	...	5,050,534
1876	4,978,914	258,931	...	5,237,845
1877	5,279,730	...	384,118	4,895,612
1878	7,018,257	...	1,005,968	6,012,289
1879	6,060,737	...	957,384	5,103,353
1880	9,398,858	...	3,578,733	5,820,125
1881	9,727,369	...	3,892,974	5,834,395
1882	8,714,377	...	3,321,532	5,392,845
1883	8,751,454	...	2,376,530	6,374,924
1884	15,570,245	...	8,232,605	7,337,640
1885	10,433,146	...	3,745,985	6,687,161
1886	9,170,538	...	2,226,907	6,943,631
1887	12,100,036	...	3,897,987	8,202,049
1888	13,328,765	...	4,373,959	8,954,806

NOTE.—In 1888 the imports of breadstuffs amounted to 174,706 bushels, valued at £31,232, but the exports of breadstuffs amounted to 4,548,865 bushels, valued at £938,008. The balance in favour of exports was, therefore, 4,373,959 bushels, valued at £906,776.

* The quantities of flour and biscuit imported and exported are reduced to their equivalent in bushels, on the assumption that 1 bushel of wheat produces 45 lbs. of either of those articles.

Population
and bread-
stuffs.

451. It will be observed that only in the last twelve years and three previous ones, viz., 1870, 1873, and 1874, has the colony raised enough breadstuffs for the consumption of its own inhabitants. In each of these fifteen years there was a surplus of Victorian-grown wheat remaining for export, the quantity in 1884, however, being more than twice as large as that in any of the other years, except 1888, in which the quantity remaining for export was rather more than half that in 1884. The following table shows, for each year, the mean population of Victoria, the quantity of breadstuffs available for consumption, and the probable manner of consumption, distinguishing the estimated quantity of wheat used for seed, or for the feeding of live stock, poultry, etc., from the wheat, flour, and biscuit used for food, the total quantity of the latter being shown as well as the quantity per head :—

POPULATION AND BREADSTUFFS, 1840 TO 1888.

Year.	Mean Population.	Wheat, Flour, and Biscuits.*			
		Quantity Available for Con- sumption.	Probable Manner of Consumption.		
			For Seed. etc.	For Food.	
				Total.	Per Head.
		Bushels.	Bushels.	Bushels.	Bushels.
1840	8,056	70,371	3,880	66,491	8·25
1841	15,353	166,770	3,404	163,366	10·64
1842	22,107	166,844	4,864	161,980	7·33
1843	23,951	113,976	9,348	104,628	4·37
1844	25,418	202,621	13,839	188,782	7·43
1845	29,007	213,135	22,933	190,202	6·56
1846	34,807	278,662	31,604	247,058	7·10
1847	40,635	382,817	35,359	347,458	8·55
1848	47,163	414,456	38,775	375,681	7·97
1849	58,805	486,312	48,494	437,818	7·45
1850	71,191	580,754	57,020	523,734	7·36
1851	86,825	772,978	59,247	713,731	8·22
1852	132,905	1,941,327	33,646	1,907,681	14·35
1853	195,378	1,998,698	15,107	1,983,591	10·15
1854	267,371	1,539,667	25,654	1,514,013	5·66
1855	338,315	2,235,587	85,372	2,150,215	6·36
1856	380,942	3,384,417	160,310	3,224,107	8·46
1857	430,347	3,817,661	174,460	3,643,201	8·47
1858	483,827	3,313,199	156,468	3,156,731	6·52
1859	517,390	3,520,723	214,185	3,306,538	6·39
1860	534,055	3,861,580	322,503	3,539,077	6·62
1861	539,824	4,982,431	393,844	4,588,587	8·50
1862	548,080	3,790,833	324,018	3,466,815	6·33
1863	562,960	3,199,594	298,784	2,900,810	5·15

* The quantities of flour and biscuit imported and exported are reduced to their equivalent in bushels, on the assumption that 1 bushel of wheat produces 45 lbs. of either of those articles.

POPULATION AND BREADSTUFFS, 1840 TO 1888—*continued*.

Year.	Mean Population.	Wheat, Flour, and Biscuits.*			
		Quantity Available for Con- sumption.	Probable Manner of Consumption.		
			For Seed, etc.	For Food.	
				Total.	Per Head.
		Bushels.	Bushels.	Bushels.	Bushels.
1864	...	586,450	3,207,752	250,080	2,957,672
1865	...	611,218	3,700,310	357,256	3,343,054
1866	...	629,038	5,268,926	417,176	4,851,750
1867	...	644,276	4,656,395	433,978	4,222,417
1868	...	663,092	3,573,701	519,608	3,054,093
1869	...	687,202	4,948,817	577,028	4,371,789
1870	...	713,195	5,601,402	568,334	5,033,068
1871	...	737,005	4,049,992	669,218	3,380,774
1872	...	753,198	4,890,758	653,128	4,237,630
1873	...	765,511	5,253,016	699,952	4,553,064
1874	...	777,656	4,711,575	665,872	4,045,703
1875	...	787,337	5,050,534	642,802	4,407,732
1876	...	796,558	5,237,845	802,834	4,435,011
1877	...	808,605	4,895,612	1,129,128	3,766,484
1878	...	821,466	6,012,289	1,383,244	4,629,045
1879	...	834,030	5,103,353	1,414,376	3,683,977
1880	...	850,343	5,820,125	1,954,570	3,865,555
1881	...	868,942	5,834,395	1,853,458	3,980,937
1882	...	890,220	5,392,845	1,938,724	3,454,121
1883	...	910,982	6,374,924	2,208,784	4,166,140
1884	...	933,894	7,337,640	2,192,708	5,144,932
1885	...	958,595	6,687,161	2,040,164	4,646,997
1886	...	987,094	6,943,631	2,105,370	4,838,261
1887	...	1,019,700	8,202,049	2,465,886	5,736,163
1888	...	1,062,050	8,954,806	2,434,382	6,520,424

452. The figures in the last column but two (For Seed, etc.) are intended to represent the whole quantity of wheat used otherwise than for the food of human beings. This is estimated arbitrarily at 2 bushels per acre of land returned as being under wheat in the year following that to which the figures in any line relate. It is known that the proportion actually sown is generally much less than this; but as a certain quantity of wheat is used for feeding swine, poultry, etc., and some is wasted or becomes spoilt, the allowance made has been thought not too high. If $1\frac{1}{2}$ bushel per acre be considered a sufficient allowance for seed, the quantity in 1888 left for consumption, waste, etc., would be 7,129,020 bushels, equal to

* The quantities of flour and biscuit imported and exported are reduced to their equivalent in bushels, on the assumption that 1 bushel of wheat produces 45 lbs. of either of those articles.

close upon $6\frac{3}{4}$ bushels per head; or, if only 1 bushel per acre be allowed for seed, the residue would amount to 7,737,615 bushels, or $7\frac{1}{3}$ bushels per head.

Consumption of breadstuffs per head.

453. The estimated average quantity of breadstuffs available for food to each individual of the population is shown in the last column of the table. This will be found to vary in different years, ranging from over 14 bushels in 1852, and between 10 and 11 bushels in 1841 and 1853, to between 4 and 5 bushels in 1843, 1868, 1871, 1877, and in six of the ten years since 1878; but in only one year, viz., 1882, to less than 4 bushels per head. The proportion per head reached $5\frac{1}{2}$ bushels in 1884, which was the year of an exceedingly bountiful harvest, and to as high as $5\frac{2}{3}$ bushels and $6\frac{1}{7}$ bushels in 1887 and 1888 respectively, the low price of wheat in England having, probably, acted as a check upon exportations in those two years.

Average consumption of breadstuffs.

454. The quantity of breadstuffs available for annual food-consumption per head has averaged $5\frac{3}{4}$ bushels over the whole period of forty-nine years, but during the last ten years it averaged not quite 5 bushels, or three-quarters of a bushel less. In the present state of the Victorian population, it may be fair to assume that from $4\frac{1}{2}$ bushels to 5 bushels per head, irrespective of the quantity required for seed, is amply sufficient to supply the wants of any given year.

Breadstuffs available for consumption in United Kingdom.

455. In the United Kingdom, animal food, in consequence of its high price, is used much more sparingly than it is in this country, especially by the working classes, and therefore, as a natural consequence, the consumption of breadstuffs in proportion to the numbers of the population is, on the average, somewhat higher than it is here. The following table shows the estimated mean population of the United Kingdom during each of the twenty-two harvest years (or periods extending from the 1st September to the 31st August) ended with 1887-8; also the total number of bushels, and number of bushels per head, of grown and imported wheat available for consumption, after deducting seed, in each of the same years:—

BREADSTUFFS AVAILABLE FOR CONSUMPTION IN THE UNITED
KINGDOM, 1867 TO 1888.

Year ended 31st August.	Mean Population.	Bushels of Wheat* available for Food.	
		Total number (000's omitted).	Number per Head.
1867	30,248,936	152,320,	5.03
1868	30,523,478	155,200,	5.08
1869	30,814,914	189,360,	6.14
1870	31,108,133	176,560,	5.68
1871	31,410,776	176,400,	5.61
1872	31,728,316	170,320,	5.37
1873	32,028,317	174,640,	5.45
1874	32,325,778	174,240,	5.39
1875	32,641,568	202,720,	6.21
1876	32,978,682	184,512,	5.59
1877	33,329,099	174,568,	5.24
1878	33,681,904	191,480,	5.68
1879	34,036,546	209,936,	6.17
1880	34,364,077	179,120,	5.21
1881	34,775,970	201,992,	5.81
1882	35,410,040	210,592,	5.95
1883	35,517,510	241,568,	6.80
1884	35,838,516	191,520,	5.37
1885	36,179,000	208,000,	5.75
1886	36,519,700	206,887,	5.67
1887	36,900,486	204,000,	5.53
1888	37,453,574	206,000,	5.50

456. As a result of calculations derived from the figures in the table, it appears that in the twenty-two years named the average quantity of wheat available for consumption in the United Kingdom was 5.65 bushels per head, or about a bushel per head more than is apparently found sufficient for the requirements of the Victorian population.

Average consumption of wheat in United Kingdom.

457. According to Mr. Coghlan, the Government Statistician of New South Wales,† the consumption of wheat per head is considerably greater in that colony than in Victoria, and even greater than in the United Kingdom, the quantity consumed per head being in 1887 as much as 7.7, and in 1888, 7.4 bushels, and the average quantity in the five years ended with 1888 being 6.9 bushels. According to the same authority, New South Wales has never grown nearly enough wheat for her own consumption, the quantity imported in 1888, after

Consumption of wheat in New South Wales.

* The total number of bushels of wheat available for consumption has been taken from articles in the Supplement to the *Statist*, London Journal. The calculations have been made in the office of the Government Statist, Melbourne.

† See *Wealth and Progress of New South Wales*, 1888-9. Potter, Sydney, 1889.

deducting the exports, being 3,722,806 bushels, whilst only 4,695,849 bushels were grown in the colony.

Consumption of breadstuffs per head in United States. 458. From somewhat similar calculations taken from the official returns of the United States, the estimated consumption of wheat per head of the population of that country averaged, during the five years ended with 1887-8, 5·48 Winchester bushels,* or about 5·31 Imperial bushels. As no deduction has been made for the wheat required for seed in the United States returns, the quantity available for food consumption is considerably less than that shown by the figures, and is probably about the same as in Victoria.

Imports and exports of breadstuffs, 1837 to 1888. 459. The quantity and declared value of the Victorian imports and exports of breadstuffs during the fifty-two years, 1837 to 1888, are set down in the following table:—

IMPORTS AND EXPORTS OF BREADSTUFFS,† 1837 TO 1888.

Wheat, Flour, and Biscuit.					Quantity.	Value.
					Bushels.	£
Imported, 1837 to 1888	...	...	...	...	33,413,632	13,986,895
Exported, „ „	...	...	...	...	44,870,232	10,951,828
Imports in excess of exports					...	3,035,067
Exports in excess of imports					11,456,600	...

Excess of quantity exported, of value imported. 460. It will be observed that the quantity of breadstuffs exported from the colony from the period of its first settlement to the end of 1888 exceeded that imported during the same period by 11½ million bushels; but, in consequence of the prices of wheat and flour during the earlier years, in which the imports invariably exceeded the exports, being much higher than in the later years, in which the exports exceeded the imports, the declared value of the breadstuffs received has exceeded that of those sent away by over 3 millions sterling.

Net imports of agricultural products. 461. The following are the values of the net imports—i.e., the values of imports after the values of the exports have been deducted—of certain vegetable productions during each of the six years ended with 1888. All the articles named are capable of being produced, and all, or nearly all, are to a certain extent now produced in the colony:—

* The Winchester bushel is smaller than the Imperial bushel by one thirty-second ($\frac{1}{32}$) part.

† The quantity and value of breadstuffs imported and exported during each year will be found in the Statistical Summary of Victoria (first folding sheet) *ante*.

**NET IMPORTS* OF CERTAIN ARTICLES OF AGRICULTURAL
PRODUCE, 1883 TO 1888.**

Articles.	Balance of Imports over Exports in—					
	1883.	1884.	1885.	1886.	1887.	1888.
	£	£	£	£	£	£
Oats	51,739	36,249	86,474	69,669	126,990	147,989
Barley and pearl barley	27,356	...	15,359	4,183	44,564	29,148
Malt ... ..	...	...	...	9,903	2,056	7,565
Maize	59,620	7,232	13,853	18,956	1,500	10,118
Maizena and corn flour	4,899	8,599	5,289	13,642	7,498	8,801
Beans, pease, and split pease	...	...	...	1,667	1,843	415
Arrowroot	2,784	2,183	2,790	558	1,105	1,872
Macaroni and vermi- celli	1,465	1,298	2,441	2,066	686	2,271
Starch	7,199	9,176	8,544	14,517	3,569	6,070
Fruit—fresh, bottled, dried, currants, and raisins	144,350	113,587	152,967	146,678	226,888	212,868
Jams, jellies, and pre- serves	...	...	...	...	3,068	...
Nuts, almonds, walnuts	6,725	4,582	9,429	7,033	6,076	8,973
Peanuts	233	...	474	689	2,129	1,615
Ginger	954	2,347	3,845	3,322	2,286	3,064
Opium	43,168	37,850	28,728	32,713	29,955	33,493
Hops	43,639	...	6,185	13,500	28,579	18,557
Chicory ... ..	...	...	2,269	...	...	...
Pickles	2,554	4,688	5,570	9,386	7,620	7,005
Mustard	12,337	8,304	9,789	17,920	13,872	16,160
Oil, olive, and salad ...	12,285	11,427	18,496	15,204	8,953	18,642
„ linseed	27,801	31,121	31,484	31,404	31,144	38,040
„ castor	39,669	24,238	10,797	31,700	34,485	24,445
Linseed meal	40	888	446	...	459	602
Tobacco, cigars, and snuff	66,222	101,836	116,212	179,955	128,618	233,221
Flax (Phormium)	6,257	6,756	8,312	5,215	3,595	8,752
Hemp	41,702	36,208	29,927	17,994	33,098	43,636
Jute	6,057	9,716	3,449	1,126	...	2,636
Broom corn and millet	7,575	6,240	6,959	7,447	4,632	4,932
Bark ... ..	...	6,492	20,905	2,287	2,955	...
Cork	21,924	19,193	13,867	19,811	1,403	935
Vegetables (preserved)	653	...	427	897	...	1,063
Canary seed	549	1,449	2,008	1,314	1,571	2,181
Grass and clover seed	4,769	7,063	14,667	11,333	13,390	10,901
Seeds, undescribed	19	...	...	11,310	15,402	8,831
Tares	72	114	109	31	81	267
Total	644,616	498,836	632,071	703,430	790,070	915,068

462. It will be observed that bark and jams are absent from the list for the last year, the latter having only appeared once, viz., in the

Decreased imports of agricultural products.

* The total imports and total exports of these articles during 1888 will be found in the table of Imports and Exports in Part "Interchange," Volume I., under Orders 14, 22, 23, 25, and 26.

column for 1887; also that chicory is absent from the list in the last three years, and only appeared once, viz., in the column for 1885.

463. In addition to the articles named in the above table, eggs, of which it might reasonably be supposed that Victoria would produce sufficient for her own consumption, were imported in 1888 to the number of 10,287,640, and to the value of £35,376; and exported to the number of only 126,974, and the value of only £631, the difference in favour of the former being 10,160,666 in number, and £34,745 in value. The value of the imports of eggs in 1887 exceeded that of the exports by £30,498, in 1886 by £15,020, in 1885 by £10,200, in 1884 by £3,958, in 1883 by £4,871, and in 1882 by £7,959.

464. Of every thousand acres cultivated during the past season, 475 acres were placed under wheat, 77 under oats, 33 under barley, 17 under potatoes, 160 under hay, and 238 under other tillage. The following table shows the proportion that the land under different crops has borne to the total area under tillage during each of the last ten years:—

PROPORTION OF LAND UNDER EACH CROP TO TOTAL UNDER CULTIVATION, 1880 TO 1889.

Year ended March.			Proportion to the Total Land under Tillage of that under—					
			Wheat.	Oats.	Barley.	Potatoes.	Hay.	Other Tillage.
			per cent.	per cent.	per cent.	per cent.	per cent.	per cent.
1880	...	...	41·89	9·93	2·56	2·46	11·93	31·23
1881	...	...	48·97	6·72	3·43	2·25	12·51	26·12
1882	...	...	50·87	8·07	2·67	2·15	11·65	24·59
1883	...	...	47·50	8·32	2·14	1·68	15·16	25·20
1884	...	...	49·84	8·49	2·11	1·81	13·67	24·08
1885	...	...	47·19	8·08	2·68	1·66	14·62	25·77
1886	...	...	42·41	8·98	3·08	1·77	17·51	26·25
1887	...	...	43·49	7·67	1·53	2·07	18·39	26·85
1888	...	...	47·86	7·72	1·59	1·87	17·15	23·81
1889	...	...	47·46	7·70	3·26	1·68	16·04	23·86

465. In addition to the principal crops of which mention has been made, various descriptions of minor crops are also raised. It is not, however, presumed that the whole of such crops, or the full measure to which they are grown, is recorded by the collectors. It is certain that they are often raised in gardens, in which case the different kinds would not be distinguished in the returns. It is also probable that they may be sometimes grown upon allotments of one acre in extent or even less, which are not taken account of. The following list

must, therefore, be looked upon as indicating the nature of certain minor crops grown in Victoria rather than the extent to which those crops have been cultivated during the last six years:—

MINOR CROPS,* 1884 TO 1889.

Nature of Crop.		1883-4.	1884-5.	1885-6.	1886-7.	1887-8.	1888-9.
Amber cane	{ acres ...	...	...	...	...	12	34
	{ cane, tons ...	...	...	...	...	90	104
	{ seed, lbs. ...	...	...	...	...	280	120
Arrowroot	{ acres ...	17	6	3	...	...	...
	{ tons (root) ...	53	127	41	...	...	...
Artichokes	{ acres ...	2	2	...	...	3	...
	{ tons ...	20	20	...	...	55	...
Beet, carrots, parsnips	{ acres ...	424	455	386	467	485	269
	{ tons ...	3,874	3,872	4,300	4,411	4,672	2,250
Broom-millet	{ acres ...	2	5	3	...	5	12
	{ fibre, cwt. ...	...	29	5	...	72	72
	{ seed, bush. ...	40	48	20	...	28	384
Buckwheat	{ acres ...	2	2	3	...	...	...
	{ bushels ...	62	58	30	...	...	...
Canary seed	{ acres ...	...	63	...	9	...	...
	{ bushels ...	...	724	...	124	...	...
Cauliflowers and cabbages	{ acres ...	7	7	27	114	164	133
	{ dozens ...	2,500	4,300	18,500	27,360	68,345	62,830
Chicory	{ acres ...	283	219	216	204	249	148
	{ tons ...	1,626	1,309	1,239	1,472	1,375	811
Durrah	{ acres ...	...	...	...	2	...	...
Flax	{ acres ...	21	11	7	...	1	3
	{ fibre, cwt. ...	38	7	9	...	5	5
	{ linseed, bush. ...	152	73	18	...	7	...
French beans	{ acres ...	...	...	...	...	2	2
	{ tons ...	...	...	...	...	3	4
Garden seeds	{ acres ...	24	45	7	43	83	46
	{ cwt. ...	62	74	14	215	196	66
Gooseberries	{ acres ...	...	...	3	2	4	4
	{ cwt. ...	...	...	28	23	140	135
Grass and clover seeds	{ acres ...	2,686	2,329	2,942	4,667	4,638	1,541
	{ bushels ...	41,964	35,559	39,793	61,490	61,177	17,444
Green pease	{ acres ...	...	108	92	80	152	85
	{ tons ...	...	36	141	98	234	117
Hops	{ acres ...	1,758	1,737	896	730	685	761
	{ lbs. ...	1,760,304	1,573,936	616,112	562,576	605,360	618,128
Maize	{ acres ...	2,570	3,854	4,530	4,901	6,031	5,789
	{ bushels ...	117,294	176,388	181,240	231,447	318,551	267,155
Mangel-wurzel	{ acres ...	1,056	1,413	1,346	1,257	1,191	897
	{ tons ...	18,906	21,935	24,129	19,142	20,590	13,974
Medicinal herbs	{ acres ...	1	...	...	3	...	...
Melons, vegetable marrows, cucumbers, etc.†	{ acres ...	...	...	...	...	...	10
	{ dozens ...	...	...	...	...	...	3,040
	{ acres ...	1	...	4	1	1	1
Mulberry trees	{ number ...	1,000	...	...	...	1,000	1,000

* Exclusive of those grown in gardens.

† Previous to the year 1889, pumpkins, melons, vegetable marrows, and cucumbers were shown in one line.

MINOR CROPS,* 1884 TO 1889—continued.

Nature of Crop.				1883-4.	1884-5.	1885-6.	1886-7.	1887-8.	1888-9.
Mustard	...	{ acres	...	71	61	7	20	16	34
		{ cwt.	...	368	287	15	100	80	112
Olives	...	{ acres	...	15	13	14	1	18	17
Onions	...	{ acres	...	1,235	1,750	1,740	1,996	2,437	1,768
		{ tons	...	6,977	11,816	10,209	11,625	11,774	4,430
Opium poppies	...	{ acres	...	6	10	16	11	11	8
		{ lbs. of opium	...	120	190	200	139	178	86
Oranges and lemons†	...	{ acres	...	4	2	6	2	34	7
Osiers	...	{ acres	...	...	3	5	8	...	6
		{ tons	...	...	3	...	5	...	11
Pease and beans	...	{ acres	...	30,443	35,288	35,460	28,672	26,692	31,222
		{ bushels	...	791,093	846,859	761,351	583,269	732,060	361,724
Pumpkins ‡	...	{ acres	...	44	119	153	69	107	158
		{ tons	...	355	837	1,447	536	850	959
Rape for seed	...	{ acres	...	14	47	...	44	70	42
		{ bushels	...	261	...	...	...	940	597
Raspberries	...	{ acres	...	235	261	271	239	218	224
		{ cwt.	...	4,595	6,307	6,470	4,499	5,384	5,249
Rhubarb	...	{ acres	...	8	8	11	20	10	22
		{ tons	...	43	18	31	169	85	132
Rye ...	...	{ acres	...	1,260	939	654	762	1,069	1,109
		{ bushels	...	16,727	15,505	8,278	11,286	14,900	10,744
Strawberries	...	{ acres	...	61	76	55	35	68	66
		{ cwt.	...	766	1,468	941	243	616	613
Sunflowers for seed	...	{ acres	...	1	2	...	6	8	...
		{ bushels	...	40	...	...	140	128	...
Teazles	...	{ acres	...	2	2	...	...	...	...
		{ number	...	...	4,000	...	...	...	...
Tobacco	...	{ acres	...	1,325	1,402	1,866	2,031	1,966	1,685
		{ cwt.	...	9,124	7,893	13,734	12,008	11,853	13,355
Tomatoes	...	{ acres	...	17	21	34	26	45	42
		{ cwt.	...	1,600	1,278	4,800	2,280	6,914	3,240
Turnips	...	{ acres	...	148	209	253	443	303	379
		{ tons	...	1,402	1,600	2,179	2,767	4,102	4,560
Vetches and tares for seed	...	{ acres	...	10	26	1	...	1	3
		{ bushels	...	194	700	40	...	20	45
Vines	...	{ acres	...	7,326	9,042	9,775	10,310	11,195	12,886
		{ wine, galls.	...	723,560	760,752	1,003,827	986,041	1,167,874	1,209,442
		{ brandy, „	...	2,646	3,623	3,875	3,233	3,352	2,994

Certain crops of which cultivation increased.

466. Although the drought already alluded to, in many instances caused a falling-off in 1889, the table shows the cultivation of the following crops, also their produce, to have, upon the whole, considerably increased of late years:—Beet, carrots and parsnips, cauliflowers and cabbages, grass and clover seeds, maize, onions, and vines.

* Exclusive of those grown in gardens.

† It is estimated there are over 100 acres planted with oranges and lemons, but such plantations are seldom distinguished separately, being included under orchards.

‡ Previous to the year 1889, pumpkins, melons, vegetable marrows, and cucumbers were shown in one line.

467. Hops but little inferior to Kentish are grown in Victoria, and the comparative failure for several successive seasons of this crop in the United Kingdom gave a considerable stimulus to that industry, commencing about 1882-3. The maximum was reached in the following year, but in 1884-5 there was a slight decline, both in the area under hops and the quantity produced, and a further considerable decline occurred in the three subsequent years. In 1888-9, however, there were some signs of a revival.

468. Raspberries as a field crop are extensively grown in the more elevated parts of the colony, especially about the ranges in which the River Yarra and its tributaries have their source. The quantity returned as raised in 1888-9 was 5,249 cwt., or about 150 cwt. less than in 1887-8, but about 700 cwt. more than in 1886-7. Since the establishment of jam factories, the fruit is in great demand, and much more would be purchased were it forthcoming.

469. At a very early period of the colony's history it was the custom of the pastoral occupiers of the soil to cultivate tobacco in small quantities for the purpose of making a decoction wherein to dip their sheep for the cure of the disease called "scab." That complaint has ceased to exist amongst the Victorian flocks; but of late years tobacco has been grown for the purpose of manufacture into an article suitable for the use of man; 1,685 acres were placed under it in 1888-9, and the yield amounted to 13,355 cwt. The land placed under tobacco was less than in the previous year by 281 acres, but the quantity raised was more than in that year by 1,502 cwt.

470. In 1888, the tobacco crop of the United States is estimated to have amounted to 5 million cwt., which, with the exception of the crop of 1885* which slightly exceeded it, is the largest tobacco crop ever raised in that country. The average crop during the five years ended with 1887 was 4,418,862 cwt., which figures, together with the figures for several European countries and for Australasia during the latest year for which information is obtainable, were as follow:—

TOBACCO CROP IN VARIOUS COUNTRIES.

cwt.			cwt.		
United States	...	4,418,862	Italy	...	120,748
Austria-Hungary	...	1,277,218	Australasia (1888-9)	...	70,486
Russia (1881)	...	930,797	Holland (1884)	...	58,583
Germany	...	758,373	Turkey	...	17,553
France...	...	421,731			

* In the last issue of the *Victorian Year-Book*, paragraph 1,141, the tobacco crop of the United States during 1885 was largely over-stated. The correct figures for that year are 562,736,000 lbs. or 5,024,429 cwt.

Consump-
tion of
tobacco in
Victoria
and other
countries.

471. The annual consumption of tobacco in Victoria ranges from 2·61 lbs. to 3·31 lbs. per head of the population, the average during a series of years being nearly 3 (2·93) lbs.* This is a larger average than that obtaining in twelve of the following countries, the information respecting which, except that relating to the Australasian colonies, has been derived from a paper read by Dr. O. J. Broch before the Statistical Society of Paris, on the 15th June, 1887.† Attention is called to the very high average consumption of tobacco in Holland and the United States of America :—

AVERAGE ANNUAL CONSUMPTION OF TOBACCO PER HEAD IN VARIOUS COUNTRIES.

	lbs.		lbs.
Holland	6·92	Norway	2·29
United States	4·40	Canada	2·11
Austria-Hungary	3·77	France	2·05
Denmark	3·70	Sweden	1·87
New South Wales	3·53	Tasmania	1·85
Queensland	3·49	New Zealand	1·75
Western Australia	3·26	Spain	1·70
Switzerland	3·24	United Kingdom	1·41
Belgium	3·15	Italy	1·34
Germany	3·00	South Australia	1·32
Victoria	2·93	Russia	1·23
Finland	2·73		

Beet sugar.

472. Beet for the manufacture of sugar has been as yet only grown in Victoria experimentally, and upon a small scale; but ordinary beet, mangolds, and root crops generally, which have for years past been cultivated to a considerable extent, succeed so well that there is every reason to believe sugar beet could be grown to advantage, did not the low price of sugar, consequent upon the heavy subsidies by which the industry is fostered in several European countries, prevent sugar-making from being carried on at a profit. The following statement, however, of the average quantity of beet sugar made annually during the five years 1880 to 1884 in the different countries in which that product is manufactured may be useful and interesting at the present time :—

BEET-ROOT SUGAR PRODUCED ANNUALLY IN VARIOUS COUNTRIES.

	Tons of Beet Sugar made annually.		Tons of Beet Sugar made annually.
Germany	656,674	Holland	19,679
Austria-Hungary	470,318	Other countries	9,839
France	399,471		
Russia	279,436	Total	1,909,212
Belgium	73,795		

* In 1887, the proportion was 2·61 lbs., and in 1888, 3·31 lbs. per head.

† See *Journal de la Société de Statistique de Paris*, vingt-huitième année, page 237; Berger-Levrault, Paris, 1887. The consumption is there given in kilogrammes, which have been turned into lbs., on the assumption that 1 of the former is equal to 2·204 of the latter.

473. The following is a statement of the world's production of Cane sugar. cane sugar in each of the five years ended with 1885; the countries in which this description of sugar was grown being also indicated:—

CANE SUGAR PRODUCED IN VARIOUS COUNTRIES, 1881 TO 1885.

Countries.			1881.	1882.	1883.	1884.	1885.
			tons.	tons.	tons.	tons.	tons.
Australia	...	...	26,475	34,500	51,500	59,869	87,245
Barbadoes	...	...	45,067	46,360	45,836	53,722	56,200
Brazil	...	...	194,516	131,397	226,709	268,335	190,000
Cuba	...	...	449,067	538,388	412,890	560,934	631,967
Egypt	...	...	32,000	26,377	21,597	37,587	45,035
Guadaloupe	...	...	42,275	57,511	51,619	55,257	41,131
Guiana (British)	...	...	92,311	124,102	116,636	125,322	96,058
„ (French and Dutch)	...	...	8,988	9,794	10,193	7,228	5,430
India (British)	...	...	32,710	72,479	72,489	82,749	54,349
Jamaica	...	...	18,166	38,968	26,558	29,868	25,361
Java	...	...	249,393	295,083	301,970	338,886	396,372
Louisiana	...	...	121,867	71,373	137,327	128,443	94,375
Manilla	...	...	210,160	153,780	212,719	122,925	203,490
Martinique	...	...	42,090	47,888	46,857	49,370	38,786
Mauritius	...	...	118,210	117,722	116,612	120,539	127,540
Natal	...	...	8,718	8,000	9,783	17,172	16,000
Porto Rico	...	...	61,715	80,066	77,632	98,665	70,000
Réunion	...	...	27,373	25,059	33,020	37,800	37,973
Trinidad	...	...	44,375	56,265	55,420	61,875	64,634
Other countries*	...	...	35,000	80,972	76,705	290,985	310,701
Total	...	...	1,860,476	2,016,084	2,104,072	2,547,531	2,592,647

474. The following is a statement of the sugar crop of the world in 1886 and 1887, cane sugar, whether grown in British possessions or foreign countries, being distinguished from beet sugar, all of which is obtained from the latter:—

Sugar crop of the world, 1886-7.

SUGAR CROP OF THE WORLD, 1886 AND 1887.

Description of Sugar.					1886.	1887.
					tons.	tons.
Cane sugar from British possessions	...	...	...	...	572,000	542,000
„ „ „ Foreign countries	...	...	...	...	2,021,000	2,161,000
Beet sugar	...	...	...	...	2,506,000	2,137,000
Total	...	...	...	...	5,099,000	4,840,000

475. No reliable information is at hand respecting the sugar crop of 1888, but it is understood to be fully 400,000 tons below the average.

Sugar crop, 1888.

* China, Peru, and Hawaii.

Consump-
tion of
sugar in
Victoria
and other
countries

476. According to the following figures, Victoria, although not consuming so much sugar per head as three of the other Australasian colonies, would appear to consume much more per head than any European country, the average quantity being $90\frac{3}{4}$ lbs., or nearly 22 lbs. more per head than the United Kingdom, which consumes more than twice as much per head as any country on the European Continent. It must, however, be remembered that in Victoria 15 million pounds of sugar annually, or nearly 15 lbs. per head, are used in the manufacture of beer, which is very much more than many countries consume altogether:—

AVERAGE ANNUAL CONSUMPTION OF SUGAR (CANE AND BEET) PER HEAD IN VARIOUS COUNTRIES.*

	lbs.		lbs.
New Zealand ...	118·77	Sweden ...	17·52
South Australia ...	102·11	Belgium ...	15·74
Western Australia ...	93·51	Germany ...	15·01
Victoria ...	90·75	Austria-Hungary ...	13·23
Tasmania ...	90·49	Norway ...	11·37
United Kingdom ...	68·99	Finland ...	11·22†
Queensland ...	62·93	Portugal ...	9·56
New South Wales ...	60·95	Roumania ...	7·71
Argentine Republic ...	50·04	Russia ...	7·69
Denmark ...	29·69	Spain ...	5·11
Holland ...	28·37	Servia ...	4·41
Switzerland ...	22·81	Italy ...	3·20
France ...	22·61		

Vines.

477. In 1888-9 the area under vines (12,886 acres) exceeded that returned in 1887-8 by 1,691 acres, and was much larger than in any previous year. The quantity of wine returned was 1,209,442 gallons, or more than that in 1887-8 by about 42,000 gallons, more than that in 1885-6 by 206,000 gallons, and much more than that in any other year. The wine industry received a temporary check some years since, in consequence of an outbreak of the disease called phylloxera vastatrix, but this was found to be confined to one district in the colony (Geelong), where it was promptly stamped out by the eradication of all vines for a distance ranging from 20 to 30 miles from the centre of that district.

Phylloxera
vastatrix.

478. An account of the visitation of the phylloxera, and of the measures taken for its suppression, was originally contributed to this work, and has recently been revised to date by Mr. D. Martin, the Secretary for Agriculture:—

* See Dr. Broch's paper, page 233, there given in kilogrammes, each equal to 2·204 lbs.

† Mr. K. F. Ignatius, of Helsingfors, in the *Statistical Journal of Paris* for February, 1889, page 72, points out that Dr. Broch has understated the consumption of sugar in Finland, by assuming that a leiviskâ is the equivalent of a kilogramme; whereas the former is equal to $8\frac{1}{2}$ times the latter. Therefore the average consumption of sugar per head in Finland is 11·22 lbs. as here stated, instead of 1·32 lbs. as stated by Dr. Broch and quoted in the last issue of this work.

The vine disease caused by the insect known as *phylloxera vastatrix* was discovered in the vineyards at Fyansford, three miles from Geelong, in the year 1877. It is now ascertained to have been present in this district for years before it was recognised as the dreaded *phylloxera*—probably for about ten years—and its origin was doubtless the importation of diseased plants.

In order to prevent, if possible, the disease from spreading, an Act was passed providing for the appointment of inspectors of vineyards, with power to enter any lands whereon vines were growing, for the purpose of ascertaining whether the vines were infected, in which case the fact was to be reported to the Chief Secretary, who might authorize steps to be taken to eradicate the disease, either by destroying the vines or otherwise, no compensation being granted to the owner of the vines for any loss he might sustain in consequence of such measures. In 1878, thirteen vineyards, containing an area of 75 acres, were uprooted and the vines burnt; and in 1879, six vineyards, containing an area of 35 acres, were similarly treated.

In November, 1880, a Select Committee of the Legislative Assembly was appointed to inquire into the state of the disease, and the best means of eradicating or mitigating it. The committee reported that there was no evidence to show that the insect settled on any vegetation other than vines; that so far as experiments had been tried no remedy or cure for the disease was known; that the time most to be dreaded for the spread of the disease was about the end of December; and that there was no other cure than the entire eradication of the vines. It was recommended that a cordon, having a radius of 20 miles, should be drawn round Geelong, and that no part of the vines within that cordon, whether cuttings, leaves, fruit, or roots should be removed outside of it; that all vines within that cordon should be inspected, and all reported as diseased, or growing within a three-mile radius of any reported as diseased, should be uprooted and burnt, the owners being awarded a moderate compensation, based, not upon the value of the vines, but upon the estimated value of the crops for the ensuing three years. Consequently upon this report another Act was passed, repealing all former Acts relating to vines and vineyards, and providing for the proclamation of infected localities as "Vine Disease Districts," to which inspectors should be appointed, on the receipt of whose reports the Minister might order any diseased vines to be uprooted, as well as all other vines, whether diseased or not, within a radius of three miles thereof, compensation being given to the owners of diseased vines up to the value of one year's crop, and to owners of vines not diseased up to the value of three years' crops. Persons were prohibited, under a penalty not exceeding £100 or imprisonment for any term not exceeding six months, from removing from a "Vine Disease District" any vine or part of a vine. The Governor-in-Council was also granted power to restrict the importation of vines, vine cuttings, or grapes, and to make regulations for the purpose of carrying the Act into effect. The question, moreover, formed one of the subjects of discussion at the Intercolonial Conference, held in Melbourne, in December, 1880, when it was agreed by the colonies of New South Wales, South Australia, and Victoria, to contribute jointly to the expense of eradicating the disease.

The *Phylloxera Vine Disease Act* 1880 was amended towards the close of 1881 by the *Geelong District Vine Disease Act* 1881, 45 Vict. No. 718 (24th December, 1881), which gave power to the Minister to order the destruction of all vines growing within the boundaries of the Geelong Vine Disease District, as described in the *Government Gazette* of the 12th January, 1881. Under the powers given by this statute all vines within the proclaimed district have been destroyed, except those in the parishes of Birregurra and Warrion. These parishes are situated at from 24 to 45 miles from where any diseased vines were growing, and consequently are not likely to be reached by the insect.

Under the several statutes above mentioned the vines have been destroyed on about 2,000 separate properties; about half of that number being cottage properties in Geelong and suburbs; and compensation has been awarded in amounts varying from £1,042 to 1s. The disease from first to last was found in 34 properties only, comprising an estimated area of 281 acres. These diseased properties are situated in a district extending from the Leigh Road to Germantown, in the valleys of the Moorabool and Barwon Rivers, a distance of about 16 miles. The last of

the diseased vineyards was destroyed in 1882. The phylloxera is, however, not yet extinct. Recent examinations show that the insects are alive in two only of the infected properties upon the still succulent rootlets which have been left in the ground. In some properties the roots are decayed all over, and consequently the phylloxera are dead; in the others the roots are decayed over portions of the properties only; the area of succulent roots is yearly becoming less.

In May, 1885, a Board was appointed to inquire as to the advisability or otherwise of permitting the re-planting of vines in the Geelong district. The Board recommended that the diseased lands be trenched, the vine roots removed and burnt, and the soil disinfected. The Board's recommendations have, so far as was practicable, been carried out. When last examined no phylloxera could be found in the trenched lands.

Phylloxera
in New
South
Wales.

479. It has for some time been known that phylloxera existed in the Camden district of New South Wales. The disease has since spread and has extended into the district of Seven Hills, but so far as is known, only 30 acres have as yet become affected. At an early period the Government of Victoria urged the Government of New South Wales to take steps to prevent the phylloxera from spreading, and an Act was accordingly passed with that object. This Act having been found to be ineffective, an amending Act has been passed, with the result that the work of destruction of the diseased vineyards is now being proceeded with. Various chemicals have been used for the purpose of destroying the vine roots, but with only partial success.

Phylloxera
in France
and other
countries.

480. The phylloxera undoubtedly came originally from the United States, where it was first discovered in 1854 by Mr. Asa Fitch upon some vines in the State of New York. It did not, however, spread much until 1863, when it made its appearance in France, and rapidly extended over the vineyards of that country. It is calculated by M. François Bernard that vineyards covering 1,000,000 hectares (2,470,000 acres) have been entirely destroyed by it, and that 200,000 hectares (494,000 acres) in addition are doomed to a like fate; moreover, large areas not yet invaded by the disease are in imminent danger of being so. The disease reached Austria-Hungary in 1875, Australia in 1877, Italy in 1879, the Crimea and Bessarabia in 1880, Turkey and Algeria in 1885, and the Cape of Good Hope in 1886. In the United States the ravages of the phylloxera were for a long time confined to the country situated to the east of the Rocky Mountains, but the insect has now penetrated to the westward, and attacked the vineyards of California. Persistent efforts have been made in France to cope with the evil, and numerous so-called "specifics" have been tried. Vines, moreover, have been extensively uprooted and replaced by vines of other species, which it is hoped may prove impervious to the attacks of the insects. These measures appear to have been attended with some success, as the wine-crop which, from an average of 1,200,000,000 gallons prior to the advent of the

phylloxera, had fallen to 600,000,000 gallons in 1885, rose to 800,000,000 gallons in 1889.

481. The following is a statement of the area under vines, and the quantity of wine produced annually in the various wine producing countries of the world. The figures have been partly taken from a paper entitled *Statistique Vinicole Universelle*, read before the Statistical Society of Paris,* on the 10th August, 1889, by M. François Bernard:—

Wine
production
in various
countries.

ANNUAL PRODUCTION OF WINE IN VARIOUS COUNTRIES.

Country.	Year.	Area under Vines.	Wine Produced. (000's omitted.)
		Acres.	Gallons.
Algeria	1888	217,716	72,073,
Australasia	1888-9	27,046	2,692,
Austria-Hungary...	1888	1,562,127	277,379,
Azores, Canaries, Madeira ...	...	...	3,300,
Cape of Good Hope	1888	...	4,491,
Chili and La Plata ... ..	...	...	44,000,
France	1889	4,801,680	809,512,
Germany	1886	180,310	99,000,
Greece	1888	185,250	38,720,
Holland	1885	...	81,994,
Italy	1882-1888	4,759,275	607,838,
Portugal	1887	503,880	94,160,
Roumania	1886	253,629	33,000,
Russia ... ..	...	...	66,000,
Servia ... ..	...	...	44,000,
Spain ... ..	...	4,310,404	350,000,
Switzerland ... ..	...	110,656	24,200,
Tunis	1888	8,151	308,
Turkey and Cyprus ... ..	...	222,300	57,200,
United States	1887	98,800	33,000,
Total ... ..	...	...	2,742,867

482. The wine made in Victoria, added to that imported after deducting that exported, amounts on the average to rather over a gallon annually per head. This shows a larger consumption of wine in this colony than in the United Kingdom, where it is less than half a gallon per head, but smaller than that in Germany, Switzerland, Austria-Hungary, and France, the wine consumption in the last named of which amounts to as much as $16\frac{1}{2}$ gallons per head. The following are the figures for these and some other countries:—

Wine con-
sumed in
various
countries.

* See Journal of that Society for 1889, page 257. The figures are there given in hectares and hectolitres, the former of which have been reduced to acres on the assumption that 1 hectare is equivalent to 2·47 acres, and the latter to gallons, on the assumption that 1 hectolitre is equivalent to 22 gallons.

ANNUAL CONSUMPTION OF WINE PER HEAD IN VARIOUS COUNTRIES.

	Gallons.		Gallons.
France ...	16·52	Queensland ...	·69
Austria-Hungary ...	4·84	Holland ...	·49
Western Australia ...	2·52	United Kingdom ...	·43
Switzerland ...	2·11	United States ...	·39
South Australia ...	1·47	New Zealand ...	·27
Germany ...	1·32	Tasmania ...	·24
Victoria ...	1·01	Sweden ...	·20
New South Wales ...	·74	Canada ...	·14

Consump-
tion of tea
in various
countries.

483. No attempt has yet been made to grow tea in Victoria for commercial purposes, although the tea plant flourishes in gardens around Melbourne, and the Government Botanist has given it as his opinion that many parts of the colony—especially the fern tree gullies—are well suited for its cultivation. The following is a statement of the quantity of tea consumed annually per head in various countries :—

ANNUAL CONSUMPTION OF TEA PER HEAD IN VARIOUS COUNTRIES.

	Annual Consumption of Tea per Head. lbs.		Annual Consumption of Tea per Head. lbs.
Australia ...	7·66	Portugal ...	·12
New Zealand ...	7·23	Switzerland ...	·10
Tasmania ...	5·35	Norway ...	·09
United Kingdom ...	4·70	Germany ...	·07
Canada ...	3·69	Belgium ...	·03
United States ...	1·40	Sweden ...	·03
Holland ...	1·16	France ...	·03
Russia ...	·61	Austria-Hungary ...	·02
Denmark ...	·37	Spain... ...	·01
Persia ...	·13		

Consump-
tion of tea
in Aus-
traliasia and
elsewhere.

484. From these figures it appears that the average consumption of tea is much larger in British than in Foreign Countries, and that Australia stands at the head of the list with an annual consumption of 7 $\frac{2}{3}$ lbs. per head of the population. It will also be observed that after British dominions the United States is the largest tea consumer, and next to it Holland, after which no country has so large a consumption as 1lb. per head.

Gardens and
orchards.

485. No return is made of the nature of the crops grown or the quantity of produce raised in gardens and orchards. The following table, however, shows the extent of land returned under this description of culture in the last two years :—

LAND UNDER GARDENS AND ORCHARDS, 1888 AND 1889.

Year ended March.				Gardens.	Orchards.	Total.
				acres.	acres.	acres.
1888	...	...	...	9,997	16,328	26,325
1889	...	...	...	11,118	16,415	27,533
Increase				1,121	87	1,208

486. Land in fallow is included in the area under tillage. The number of acres in this condition in 1889 was 332,586, or 31,768 less than in the previous year. Land in fallow.

487. According to the returns of the past season, irrigation was being practised on a more or less extensive scale in 27 municipalities. Certain crops in these districts covered 499,636 acres, of which 24,574 acres, or 5 per cent., were subjected to irrigation. The following table shows the extent of land under these crops, and their gross and average produce; the tillage and produce on unirrigated and on irrigated land being distinguished :— Irrigation.

IRRIGATION IN CERTAIN MUNICIPALITIES, 1888-9.

Crops.	In Municipalities practising Irrigation.					
	Extent under Crop on Land—		Gross Produce on Land—		Produce per Acre on Land—	
	Unirrigated.	Irrigated.	Unirrigated.	Irrigated.	Unirrigated.	Irrigated.
GRAIN CROPS.	acres.	acres.	bushels.	bushels.	bushels.	bushels.
Wheat	371,048	16,403	2,053,479	160,363	5·54	9·78
Oats	5,380	1,899	84,687	34,318	15·74	18·07
Barley, malting ...	4,952	712	37,736	11,288	7·63	15·85
„ other	1,325	151	16,639	2,391	12·57	15·84
Maize	2,250	75	107,140	4,125	47·62	55·00
Pease and Beans...	...	2	...	failed.	...	...
ROOT CROPS.	acres.	acres.	tons.	tons.	tons.	tons.
Potatoes	747	46	2,616	209	3·50	4·54
Mangel-wurzel ...	18	9	173	127	9·61	14·11
Beet ... ..	...	1	...	6	13·85*	6·00
Chicory ... ..	...	30	...	210	5·48*	7·00
Carrots & Parsnips	...	6	...	150	8·20*	25·00
HAY, GRASS, ETC.	acres.	acres.	tons.	tons.	tons.	tons.
Hay	74,658	4,004	34,002	3,511	·47	·88
Green Forage ...	1,034	483	...	...	...	...
Artificial Grasses	7,814	171	...	...	...	...
OTHER TILLAGE.	acres.	acres.	cwt.	cwt.	cwt.	cwt.
Hops	215	116	1,616	817	7·51	7·04
Grapes	4,197	55†	92,496	1,870‡	22·04	55·00
Gardens	630	66	...	...	...	...
Orchards	794	345	...	...	...	...

488. An examination of the last two columns will show that irrigation was attended with beneficial results in the case of all the crops Yield of crops on irrigated land.

* There being no beet, chicory, or carrots and parsnips returned as grown on unirrigated land in the shires in which irrigation was practised, these figures relate to other parts of the colony.

† Of this extent 21 acres were under vines too young for bearing.

‡ Produce of 34 acres only.

named in the table except beet and hops, and the extent under the former crop subjected to irrigation was only one acre. The improved yield of all the other crops was considerable; thus, whilst in certain shires the yield per acre of wheat was $5\frac{1}{2}$ bushels, oats $15\frac{3}{4}$ bushels, potatoes $3\frac{1}{2}$ tons, and hay half a ton on unirrigated land, in the same shires on irrigated land the yield per acre of wheat was $9\frac{3}{4}$ bushels, oats 18 bushels, potatoes $4\frac{1}{2}$ tons, and hay nearly a ton. The yield per acre of grapes was 22 cwt. on unirrigated, and 55 cwt. on irrigated land, and with reference to this crop it may be remarked that although the quantity of wine would undoubtedly be increased by the larger quantity of grapes available, the proportion of wine to a given quantity of grapes is but slightly, if at all, affected by irrigation, the proportion in the past season being 6·57 gallons to the cwt. of grapes grown on unirrigated land, and 6·82 gallons to the cwt. of grapes grown on irrigated land.

Irrigation in
boroughs.

489. The only boroughs in which the returns show irrigation to have been practised on at all an extensive scale in the past season are Horsham and Talbot. In the former of these the water is obtained from the Wimmera River, by means of pumping machinery belonging to the Messrs. Young, and in the latter from a creek, across which a dam has been placed. In other towns, where there is a regular water service, sprinklers are used to a considerable extent, and nursery gardens in Sandhurst and Buninyong are stated to be irrigated, but no figures relating to these small attempts at irrigation appear in the tables.

Irrigation in
shires.

490. The returns show irrigation to have been practised more or less extensively in the following shires:—Avon, where water for one farm is obtained by means of a race from the Avon River, and for another by a horse-power pump from the Perry River; Bacchus Marsh, where five farms obtain water from the Bacchus Marsh Water Trust, and four from the Lerderderg River by means of races, one of the latter employing a steam pumping engine; Bairnsdale, where six farms obtain water from the Mitchell River, two employing steam power, and on one of which the maize crop averaged 60 bushels to the acre, whilst the same crop in the remainder of the shire averaged only 48 bushels; Beechworth, where water for the irrigation of hop plantations is obtained from the Ovens River; Dunmunkle, where five farms obtain water from the Dunmunkle Water Trust; Echuca, where six farms are using steam pumps for the purpose of obtaining water from the Murray River, Kow Swamp, Piccaninny Creek, and Campaspe River, and two farms are using horse pumps to raise water from the Kow Swamp; Glenelg, where on one farm twelve acres

were irrigated, two acres of which produced 180 bushels of maize, five acres produced 300 bushels of barley, two acres produced 80 bushels of oats, and three acres produced 21 tons of potatoes; Gordon, where 118 farms were irrigated, but on 39 of these the water was laid on too late to secure a crop, the water was obtained from the Tragowel Plains, Loddon United, and Leaghur and Meering Water Trusts, pumps being used in eleven instances, the average yield of wheat per acre on the land which was supplied with water in time was 9 bushels, the average for the remainder of the shire being $2\frac{2}{3}$ bushels; Keilor, where hydraulic rams are used, by means of which 32 acres were irrigated, potatoes yielding 3 tons, mangolds 25 tons and hay 3 tons per acre; Omeo, where 44 acres on three farms are served by irrigation races, the water being derived from Livingstone Creek, Junction Creek, and Little River, the last-named race being $2\frac{1}{2}$ miles long, and capable of irrigating 100 acres; Rodney, where three farms are supplied by the Echuca and Waranga Water Trust, and one farm raises water from the Goulburn River by means of a whim; Rutherglen, where a vineyard, garden, and orchard are supplied with water raised from a lagoon; St. Arnaud, where two farms have obtained water from the Wimmera United Water Trust, and have raised 44 bushels of wheat on one acre and 30 tons of hay on ten acres; Swan Hill, where no fewer than 213 farms practised irrigation, the water being obtained from the Tragowel, Leaghur and Meering, Benjeroop and Murrabit, Koondrook, and Twelve-Mile Water Trusts, as well as from numerous private irrigation schemes, the wheat grown on irrigated land averaging $10\frac{2}{3}$ bushels to the acre, whilst that grown on unirrigated land averaged only $2\frac{1}{4}$ bushels per acre; Tambo, where twelve acres of hops were supplied by a steam centrifugal pump. Irrigation was also practised on a small scale in the shires of Ararat, Grenville, Kara Kara, Korong, Lilydale, Walhalla, Waranga, Wodonga, and Wyndham.

491. The extent of land subjected to irrigation in the year under review was nearly three times as large as that in the previous year, but only a seventh larger than that in 1886-7. That so little land was irrigated in 1887-8 may be attributed to the circumstance that the abundant rainfall in many parts of the country during that year rendered irrigation unnecessary. The following table contains a statement of the acreage under the various crops returned as under irrigation in each of the last six years:—

Irrigation,
1884 to 1889

IRRIGATION, 1884 TO 1889.

Crops subjected to Irrigation.	Number of Acres subjected to Irrigation.					
	1883-4.	1884-5.	1885-6.	1886-7.	1887-8.	1888-9.
Wheat	4,968	3,322	8,109	14,034	7,206	16,403
Oats	94	187	502	1,416	297	1,899
Barley	49	41	237	349	...	863
Maize ... ..	...	19	10	1	...	75
Pease and Beans ... ..	...	3	11	3	1	2
Potatoes	30	29	22	93	12	46
Turnips ... ..	...	...	5	7	1	...
Mangel-wurzel	14	11	13	6	1	9
Beet, Carrots, etc. ... ..	...	18	15	11	...	7
Onions ... ..	...	...	...	1	1	...
Chicory	18	30	28	30	20	30
Hay	781	1,924	3,939	4,633	1,172	4,004
Green Forage	16	33	89	155	37	483
Artificial Grasses	415	1,003	206	251	108	171
Hops	398	357	254	60	48	116
Tobacco	7	...	...	52	...	...
Pumpkins ... ..	...	...	...	4	...	...
Tomatoes ... ..	...	1	2	2	1	...
Vines	103	20	...	56	37	55
Gardens and Orchards	42	48	37	178	51	411
Total	6,935	7,046	13,479	21,342	8,993	24,574

492. Towards the close of 1883, a measure* was passed in which express provision was made, for the first time, for the construction of irrigation works on a large scale. To accomplish this object, it was provided that certain areas might, at the request of the residents, be proclaimed "Irrigation Areas," to which Trusts (the members of which were to be elected by the ratepayers) might be appointed to carry out the irrigation schemes proposed for the various districts and approved of by the Governor in Council. The commissioners of these Trusts were granted power, under certain restrictions, to borrow money, in the open market,† for the purpose of constructing the works included in the scheme, for the repayment of which a sinking fund was to be provided; also to levy rates upon all lands capable of irrigation within the area under their jurisdiction, in order to provide the annual interest on the loan and the necessary payment to the sinking fund, and to defray the current expenses attendant upon the operations of the trust. These trusts were essentially private corporations, having no direct connexion with, or responsibility to, the Government,

* *Victorian Water Conservation Act 1883* (47 Vict. No. 778).
 † The aggregate amount borrowed was never to exceed 70 per cent. of the gross value of the land within the area.

Statute for promoting irrigation.

and not being to any extent under State control.* By the *Water Conservation Act* 1885, however, the Government was authorized to advance moneys by way of loan to these bodies.

493. These measures were repealed, so far as the irrigation clauses were concerned, on the 16th December, 1886, by "an Act to make better provision for the supply of water for irrigation, and also for mining, manufacturing, and other purposes." The principal provisions of this Act, which is entitled *The Irrigation Act* 1886 (50 Vict. No. 898), have been described as follows by an officer of the Water Supply Department:—

*Irrigation
Act 1886.*

THE IRRIGATION ACT 1886.

This measure repeals all previous legislation dealing with the question of irrigation, except as to acts done and irrigation trusts heretofore constituted.

It also contains the important declaration that the right to use the waters of the rivers, streams, etc., of the colony shall be deemed to be vested in the Crown until the contrary is proven by establishing any other right.

Provision is likewise made for the construction of "national works" by the Government.

National works are declared to be such by the special Act authorizing their being proceeded with. They are defined as works that, in the opinion of the Minister of Water Supply, "are of such magnitude, affect such sources of water supply, and command such large areas of country, that it is advisable that they should be constructed by and retained under the direct control of the State."

Some important enlargements have been made in the powers which may be exercised by trusts under this Act as compared with those given to trusts previously constituted.

To enable the necessary funds to be raised to carry out schemes of supply, the issue of debentures by trusts is provided for, whilst loans of Government moneys for a like purpose may, with the approval of Parliament, be granted.

494. Under this Act there were, on the 30th June, 1889, 20 Irrigation and Water Supply Trusts, having jurisdiction over 1,267,517 acres of land, having a net irrigable area of 1,078,779 acres, of which 294,240 acres are capable of being irrigated annually. The present value of the irrigable lands was set down as £3,550,728, and the annual rateable value of the same was £139,212. The aggregate borrowing power of the Trusts is limited to £1,015,911, of which the Government have agreed to advance £950,776; whilst the amount actually advanced to the 30th June, 1889, was £212,567.

*Irrigation
and Water
Supply
Trusts.*

495. The more important works connected with irrigation or those connected with the principal rivers which will form the main supply in some cases for several local schemes, are undertaken by, and are under, the entire control of the State. These are known by the name of National works. The following account of such works, and of the progress already made in their construction, has been taken from the

*National
Irrigation
Works.*

* See First Annual General Report by Secretary of Mines and Water Supply, page 9.

Third Annual General Report of the Secretary for Water Supply, dated 1st September, 1889:—

GOULBURN NATIONAL WORKS.—These comprise a masonry weir on the Goulburn River, about 8 miles above Murchison, a channel thence on the east side of the river about 31 miles in length to the parish of Shepparton, and capable of conveying a volume of water of 20,000 cubic feet per minute; a channel on the west side, about 24 miles in length, to Waranga, capable of carrying 100,000 cubic feet per minute; a reservoir at the Waranga Swamp, originally intended to contain about 4,000, but the design of which has been enlarged to nearly 8,000 millions of cubic feet; and a channel from the Waranga reservoir westward to the Campaspe River, about 60 miles. The contract date for the completion of the weir expired on the 30th June, 1889,* but in consequence of the severe and protracted floods of the winter of 1887, and again of the winter now drawing to a close, it may be expected to be quite nine months over contract time. The channel on the east side of the river is trial-surveyed only. That on the west side to Waranga is permanently surveyed throughout, and the first 10 miles are in contractors' hands. The contract date for completion is November, 1890; but there is provision for the completion of a service channel to deliver water at the take-off of the Rodney Trust's works as soon as the weir is in a condition to divert a supply from the river. The permanent surveys of the proposed Waranga reservoir are nearly finished, and the greater portion of the land required has been privately purchased on behalf of the Board of Land and Works. The surveys for the line of channel westward to the Campaspe have been commenced.

BROKEN RIVER WORKS.—These consist of a weir on the Broken River, at a point about two miles north from Benalla; a channel thence to the Winton Swamp; a reservoir at the swamp to store about 3,200 millions of cubic feet for the summer supply of the Broken River and Broken Creek districts; and the clearing, sectioning and grading of the Stockyard Creek, so that it may act as a supply channel from the reservoir to the Broken River at Goorambat. The permanent surveys of the whole are nearly completed, and the designs are in engineer's hands.

CAMPASPE NATIONAL WORK is intended to be a storage and regulating reservoir on the Campaspe River at Langwornor, immediately below the junction of that river with the Coliban. It would probably be of concrete masonry, and would have a capacity of 785 millions of cubic feet. Its purpose would be to maintain a constant and nearly uniform flow in the river, so as to provide for the service of the Irrigation Trusts lower down. The permanent surveys are complete, and in the hands of an engineer for the preparation of a design and working drawings.

LODDON NATIONAL WORK.—This will consist of a regulating reservoir on the Loddon River, about half-a-mile above Laanecoorie. It will be a compound structure, the portion in the river channel being a weir of concrete masonry, with automatic tilting gates for the discharge of excessive floods; with an extension on the left bank in the form of an earthen dam, protected in rear from erosion by the action of flood waters by a heavy berm or banquette of materials not liable to scour. The capacity of the reservoir will be 576 millions of cubic feet. The work is now under contract, but, partly in consequence of the frequent and heavy floods of this year, very little progress has been made beyond the preparation of materials.

KOW SWAMP NATIONAL WORKS.—These will consist of a direct cut, from the head of the Gunbower Creek to the Kow Swamp, advantage being taken as far as possible of the creek channel; a reservoir with outlet and regulating weir at the Kow Swamp; and a channel and branch thence to the Loddon. It is intended for the service of the lands in the lower part of the Loddon valley. The permanent surveys are practically completed, and the designs in engineers' hands. It is expected that tenders for the first sections will be called for in a few weeks.

EAST WIMMERA WORKS.—Final surveys of a number of storages have been made in this district, but no final decision has yet been arrived at as to which shall be first selected for construction. It seems highly probable, however, that the first work undertaken will be a masonry storage dam at Hall's Gap, with a channel thence to the Wimmera River at Glenorchy. More detailed trial surveys, and some

* The work was commenced about March, 1887, when the contract was accepted.

necessary pitting and boring for the foundations, are in progress, and it is hoped, should these prove favourable, to have the matter in the hands of an engineer, to prepare designs within a few weeks.

WEST WIMMERA WORKS.—Extended trial surveys for a work for the supply of the Western Wimmera had been carried out, examinations made, and reports obtained; and a site had been so far determined on that the intention to construct was announced by the Minister in his declaration on the first petition for the constitution of the West Wimmera Trust. Further survey and examination have shown this site to be unsuitable. Another site, apparently suitable, possessing a much larger drainage area, and of sufficient capacity, has been found lower down, and still at a level sufficiently high to command most of the irrigable land in the district. Both sites are on the upper portion of the Glenelg River. Further survey and examinations are proceeding, and it is expected that a decision as to the site and character of the work will soon be arrived at.

WERRIBEE NATIONAL WORKS.—A number of surveys have been made of reservoir sites and diversion channels. From the information at present to hand it seems probable that a beginning will be made with a storage work on the Werribee River, above Ballan; and possibly also a channel to convey the stored water to the lower part of the Werribee valley, where are situated the lands to be irrigated. The question is now under the consideration of the engineering branch of the department, and of the Bacchus Marsh and Werribee Irrigation Trusts.

496. The Goulburn Weir, situated on the Goulburn River, about eight miles above Murchison, is the largest and most important work yet undertaken in connexion with irrigation in this colony. The work, which is now nearly completed, will cost close on £100,000. The following interesting description of the work is taken from the First Annual General Report by the Secretary for Mines and Water Supply:—

GOULBURN RIVER WEIR.—This weir will be the headwork of the Goulburn irrigation scheme. The object is to admit of the water of the river being drawn off at a sufficiently high level for the irrigation of the plains. The works are of a massive character, and are receiving the closest and most careful supervision. The height of the weir from the bed-rock in the river channel to the top of the flood-gates will be 48 feet, and the length over the abutment walls 695 feet. It will be constructed of Portland cement concrete, with a backing of granite in large blocks, forming steps. A space of 396 feet in the body of the weir is to be fitted with flood-gates to admit of the height of water above the weir being regulated to the necessary level, and for the passage of floods. The flood-gates will be each 20 feet wide and 10 feet high, 18 in number, and are arranged to be lowered by hand gearing into chambers in the body of the structure. The water will be drawn off by channels, one on each bank of the river, fitted with regulating gates at the off-take. The western supply channel is designed to carry 75,000 cubic feet per minute, and that on the eastern side of the river 10,000 cubic feet per minute,* sufficient, according to the estimates of the chief engineer, for the cold weather irrigation of more than 300,000 acres, and the summer irrigation of 150,000 acres of land.

497. In 1886 the Messrs. George and W. B. Chaffey, two gentlemen, Canadians by birth, who had had considerable experience in irrigation work in the United States, visited Victoria with a view of establishing an irrigation colony therein upon an extensive scale. They submitted their proposals to the Government, which included the

Chaffey
Irrigation
scheme.

* These channels were subsequently enlarged so as to take 120,000 and 20,000 gallons respectively.

grant, upon certain conditions, of an extensive block of land in the Mallee country, contiguous to the River Murray. The Government looked favourably upon their undertaking, but found themselves powerless to make the concessions asked for under the then existing law. They therefore introduced a Bill into Parliament, which eventually became law under the title of *The Waterworks Construction Encouragement Act 1886*,* giving the required powers to the Government, but prescribing that the concessions asked for by the Messrs. Chaffey should be open to public competition for a period of two months. Tenders were invited accordingly, and the Messrs. Chaffey being the only tenderers, were, in course of time, placed in possession of the land. They have since turned the scheme over to a limited liability company, but they still retain the management. The following interesting account, the information embodied in which is brought down to the latest date, has been drawn up by Mr. J. F. Kilburn, the company's secretary, expressly for the *Victorian Year-Book*:—

CHAFFEY IRRIGATION COLONY.

The Government of Victoria, about the middle of 1887, brought to a satisfactory conclusion negotiations which had for some time been pending with Messrs. Chaffey Bros., the well-known firm of irrigationists, late of Ontario, California, an irrigation colony recently established by them and named after the important province in Canada where they formerly resided, and of which they are natives. The agreement entered into involves the appropriation of an extensive area of land in what is known as the Mallee country, which is situated at the western boundary of the colony, on the Murray River, and near the borders of South Australia, the Government of which colony has entered into a similar arrangement with the same firm. Messrs. Chaffey Bros., according to the terms of the deed of agreement, entered into occupation, in the first instance, of two blocks of 25,000 acres each, upon which active operations had for some time been going on. Briefly stated, the agreement in effect embraces the grant of 250,000 acres of land and the authority to use the Murray waters in irrigating the same for the purposes of cultivation, and includes all necessary enabling powers for the carrying out of an extensive scheme of colonization, the intention of Messrs. Chaffey being to lay out the land for such cultivation, and to construct the necessary works, selling the land as they proceed in blocks of from five acres and upwards, each purchaser securing a proportionate share and interest in the irrigating works and participating in the privileges with respect to the use of the water, etc., under the agreement in question. The chief cultivation which it is intended to carry on is that of fruit and vines, but a large area will be devoted to the purposes of general agricultural production. There are certain stipulations in the agreement securing the non-disturbance of the beneficial flow of the river below the points of diversion, etc.; but as there is a similar diversion to be made lower down the river with respect to the South Australian scheme, and the Government of Victoria reserve the right to grant further diversions for irrigation purposes in addition to that which will be made under their agreement with Messrs. Chaffey, it is to be justly inferred that the resources of the Murray are amply sufficient for these two diversions and others that may follow. The water right which will be secured to owners and cultivators of the land under the Chaffey scheme is practically, therefore, a perpetual one. The licence under which it is conferred is granted for a period of 25 years "with the right of renewal of the same from time to time for

* 50 Vict. No. 310.

successive similar periods of 25 years." Messrs. Chaffey Bros. undertake to expend £10,000 during the first twelve months, £35,000 during the first five years, £140,000 during the second five years, £75,000 during the third five years, and £50,000 during the fourth five years—a total of £300,000 in twenty years in irrigation works, agriculture and horticulture, and the establishment of a fruit-preserving industry, etc. Any serious breach of the conditions on the part of the Messrs. Chaffey Bros. involves the annulment of the agreement on the payment by the Government of 80 per cent. on the value of the irrigation works and substantial and permanent improvements then existing upon the land resumed; but any land granted in fee-simple to Messrs. Chaffey Bros. and sold by them *bonâ fide*, or conveyed in trust for the agricultural school or college which the Chaffey Bros. undertake to establish, is exempted from resumption by the Crown. The improvements referred to are stated to include the construction and machinery of the irrigation works; the making of roads, railways, tramways, canals, water-races, drains, bridges; making and laying pipes or other conduits; clearing, fencing, preparing the ground, planting with trees and vines, and the erection of substantial buildings. The carrying out of so extensive a scheme of colonization will involve the settlement upon the land of a very large number of cultivators, it not being the intention of Messrs. Chaffey to cultivate on their own account and for purposes of direct profit, but only, and to a limited extent, for experimental purposes, their work being generally to co-operate in the successful and rapid development of the colony, and to improve lands for sale. Neither is it contemplated to create a class of tenant cultivators; the lands are to be sold outright at the prices of £20 per acre for fruit growing, and £15 per acre for general agricultural purposes. Terms of payment extending over ten years, when desired, are allowed, 5 per cent. interest being added to the purchase money as above. As the fruit lands will take a few years to bring to profitable results, purchasers of same are offered irrigated agricultural land which will afford speedy returns, on lease, with the option of purchase, on a produce rental of one third of the gross return; seed and water for irrigation being supplied free by the company. It is confidently anticipated, from Messrs. Chaffey's Californian experience, and having regard also to the present productive powers of lands irrigated by the waters of the Murray, that a standard rate of yield of some 30 bushels to the acre of wheat, and, with respect to fruit, of from 1,000 to 1,500 marketable oranges per tree (in mature bearing growth and under efficient cultivation) may be steadily maintained, since the uncertainties attendant upon irregular or deficient rainfalls can here be avoided. The allotments or farms will vary in size from the minimum of 5 acres to 160 acres, which is the largest area that can be acquired direct from Messrs. Chaffey by any single purchaser. The lands which will be leased as above will only be limited in area by the cultivating abilities of the lessees. There is a large extent of land (14,000 acres) set aside for the erection and endowment of an agricultural college, which will be early proceeded with, and reserves are made for churches, schools, and other institutions. A prominent feature of the scheme is the laying out of an extensive site for a town, with numerous surrounding villa blocks each $2\frac{1}{2}$ acres in extent. A broad avenue (196 feet in width), planted with several rows of trees, and running through the centre of the town, will be formed and planted by Messrs. Chaffey Bros. as among the earliest contributions to the list of public improvements. The colony is to bear the name of "Mildura," which was that attaching to the pastoral land which forms the chief part of the grant.

Although the Chaffey Bros. have been less than two years in occupation, the settlement is already assuming the appearance of a vast orchard. The main avenue has been cleared, formed and planted with four rows for a distance of five miles, and the land on either side for a considerable distance is being brought under close cultivation. Up to the present date (July, 1889) the cleared land amounts to 2,300 acres. Of this 1,750 acres have been cultivated, and the planted area includes fruit trees, olive, orange and lemon trees, 900 acres; vines, 300 acres; cereal and fodder crops, 600 acres. Several gangs of planters are busily engaged, and the above figures will be considerably increased before the close of the season. The land purchased from the firm has been taken up in lots averaging about 20 acres in extent, and this land is being rapidly settled upon and improved. A handsome town is being

established, and on all sides palatial buildings and snug cottages are springing up into view. Four brickmaking establishments, with an aggregate output of about 22,000 per day are at work, but up to the present they have barely sufficed to keep pace with the demand. Limestone and builders' sand of excellent quality are procurable in abundance, and two timber yards are doing a thriving trade. New public buildings, including a Custom house, State school and post office have been promised, and their erection is to be at once undertaken by the Government. A movement is on foot to erect a large public institute, to include a free library and horticultural museum, and already about £1,000 has been locally collected towards that object. The Settlers Association, which includes nearly all the landholders of Mildura, is a most powerful and progressive body, and one of its principal objects is the diffusion of knowledge of the Mildura industries by lectures, debates and horticultural competitions. Plans for the Chaffey College of Agriculture have been approved, and the building, which is to cost £20,000, will be the finest of its kind in the colonies. The State school is being temporarily conducted in two rented buildings, but the accommodation is altogether inadequate for the 200 children of school age on the settlement. The *Mildura Cultivator Journal*, published on the settlement, deals with irrigation and intense culture, and it has secured wide circulation. An extensive foundry and engineering establishment is one of the features of the place, and the manufacture of steam boilers and water mains, and the refitting of steamboats, are carried on there. The Mildura Coffee Palace Co. is erecting a large and handsome edifice, which will be completed in September next; the contract price for the building alone considerably exceeds \$4,000. The money spent in works at Mildura, exclusive of the improvements effected by the settlers themselves, totals £120,000, and Crown grants have been issued for upwards of 13,000 acres. The irrigation works include 33 miles of main canals, and 60 miles of subsidiary channels, supplied by eight pumping plants with an aggregate water raising power of over 50,000 gallons per minute. Two of the pumping plants are the largest in the world (as far as irrigation appliances are concerned) and the waterworks generally were pronounced by Mr. Stuart Murray, engineer-in-chief of the Water Supply Department, who visited Mildura in June last, to be of a most substantial and permanent kind. In fact, he said that the Chaffey Bros.' works carried out with private capital only excelled those that were being executed by the Irrigation Trusts, with the assistance of Government funds.

The provision for supplying that part of the territory first entered upon—some 24,000 acres—is practically complete, and abundance of water is available. The orchards and vineyards have made splendid growth, and it has been ascertained that with the assistance of irrigation the planting season can be greatly extended. Experiments with maize, wheat, and other cereals show that the soil and climate is eminently adapted for their culture, two or more crops can readily be raised from the same land in the year. An evidence of the extraordinary productiveness of Mildura soil is afforded by the fact that in five months a field of sorghum yielded 55 tons of green forage per acre. This phenomenal yield was obtained without resort to any fertilizer other than irrigation. The rabbit nuisance, which it was at first feared would be a hindrance to the settlement's success is found to be hardly an element in the calculation. The various holders in a section combine and erect a ring fence round the lots and they have no further trouble. The promoters have also made provision against rabbit incursion by the erection of vermin proof fences, and at the present time there are about 150 miles completed.

Substantial bridges have been constructed at the intersections of the main thoroughfares with the channels, and the minor avenues and streets are being gradually cleared and formed.

The settlers are contented and hopeful, and the enormous increase in the value of the earlier purchases, some of which have changed hands at double their original cost, is a most encouraging indication for the future.

In churches, the Anglican, Presbyterian, and Wesleyan denominations are represented. Recreation is provided by racing, football, cricket, and tennis clubs, and there is abundance of shooting and fishing in the vicinity.

The survey of a line of railway to Mildura is in progress, and it is expected that its construction will shortly be entered upon. At present, traffic requirements are

met to some extent by the lines of steamers from Echuca and Goolwa, S.A. The Messrs. Chaffey Bros. have already placed some fine boats on the river, and they are now procuring a light draught steel steamer with large carrying capacity and a speed of fifteen knots, for the Mildura service. This boat, it is anticipated, will run at all seasons of the year.

During the present year the settlement has been visited by members of the Governments of Victoria, New South Wales, and South Australia, and in each case they have given most favourable accounts of its capacities, progress, and prospects.

498. About the end of 1887 an Act was passed (51 Vict. No. 946), consolidating the various Water Conservation Acts 1881-86, so far as they relate to domestic and stock supply. Of these there were five:—No. 716 of 1881, No. 778 of 1883, No. 829 of 1884, No. 859 of 1885, and No. 893 of 1886. So much of each of these as had not been already repealed was repealed by the new Act, and all Waterworks Trusts formerly constituted were brought under the provisions of this Act. By this consolidation the legislation affecting water trusts has been much simplified; the *Irrigation Act*, No. 898 of 1886, already referred to, dealing wholly with trusts formed for irrigation purposes, and the Act above referred to (No. 946), dealing wholly with trusts formed to secure domestic and stock supplies, are now the only two on the Statute Book directly affecting water supply by local corporations.*

Water Conservation Acts.

499. Under the Water Conservation Acts just referred to 34 Waterworks Trusts have been formed and were in existence on the 30th June, 1889, of which 6 had only been recently formed, whilst the remaining 28 had control of 14 rural water supply works, and 27 urban supplies. Thirteen of these trusts are almost identical with the municipal councils. The rural schemes have one reservoir containing 3,067,881,000 gallons, besides numerous weirs, dams, and tanks, supplying an area of 5,070,040 acres, of an annual rateable value of £650,524; whilst the estimated cost of the works was £643,541, of which £610,799 had already been advanced on loan by the Government. The urban works have a storage capacity of about 6½ million gallons, and were estimated to cost £244,200; the annual value of rateable property in the districts supplied being £214,220.

Waterworks and waterworks trusts.

500. Prior to the constitution of the Waterworks Trusts extensive works for the storage and supply of water for domestic, mining, and, to a limited extent, for irrigation purposes, had been constructed by the Government and by Local Bodies in various parts of the colony. The most important of these is the Yan Yean reservoir, together with the

Waterworks under Government.

* This information has been extracted from the Second Annual General Report by the Secretary for Mines and Water Supply, page 3.

subsidiary reservoirs at Jack's Creek, Morang, Preston, Essendon, Caulfield and Kew, by means of which Melbourne is provided with a supply of fresh water at a high pressure. The Yan Yean is an artificial lake situated 22 miles from the city, and 595 feet above its level, which covers an area of 1,360 acres, or rather more than two square miles. To meet the increased demand for water consequent upon the growth of the city and suburbs, a new channel has been formed for the purpose of turning into the reservoir other considerable streams of pure water, by which means all fear of the supply becoming exhausted in seasons of drought will be at an end. The following table contains a list of such of these works as are under Government control; also a statement of the estimated storage capacity, and the total cost of each scheme :—

WATERWORKS UNDER GOVERNMENT CONTROL.

Scheme—Name of Town or District supplied.	Reservoir or Source of Supply.		Cost.
	Where situated.	Storage Capacity.	
		Gallons.	£
Melbourne and Suburbs	Yan Yean ...	6,400,000,000	2,440,000
	Jack's Creek ...	60,000,000	
	Morang (pipe head) ...	3,000,000	
	Preston (storage) ...	15,000,000	
	Essendon (storage 1) ...	6,000,000	
	" (" 2) ...	1,000,000	
	Caulfield (") ...	10,000,000	
	Kew ...	3,000,000	
COLIBAN SCHEME.			
Taradale ...	Malmsbury ...	3,255,000,000	1,069,254
	Taradale ...	65,000	
Castlemaine and Chewton	Expedition Pass ...	120,000,000	
	Red Hill ...	1,250,000	
	Old Post Office Hill ...	2,000,000	
	Barker's Creek ...	629,135,000	
Fryerstown ...	Specimen Gully ...	2,618,000	
Maldon ...	Crocodile Gully ...	5,407,000	
	Green Gully ...	1,500,000	
Sandhurst ...	Big Hill ...	68,000,000	
	Big Hill Tank ...	300,000	
	Crusoe Valley ...	320,000,000	
	New Chum Tank ...	23,000	
Sandhurst District	Solomon's Gully ...	1,250,000	
	Spring Gully ...	150,000,000	
	Upper Grassy Flat ...	58,860,000	
Eaglehawk ...	Lower Grassy Fat ...	26,800,000	
	Sparrow Hawk ...	1,500,000	
Raywood ...	Lightning Hill ...	7,000,000	
	Raywood ...	2,500,000	
Sebastian ...	Sebastian ...	239,200	
Lockwood and Marong ...	Green Gully ...	3,500,000	

WATERWORKS UNDER GOVERNMENT CONTROL—*continued.*

Scheme—Name of Town or District supplied.	Reservoir or Source of Supply.		Cost.
	Where situated.	Storage Capacity.	
Geelong and suburbs	Upper Stony Creek ...	Gallons. 354,000,000	£ 357,337
	Lower Stony Creek ...	143,000,000	
	Anakie (pipe head) ...	900,000	
	Lovely Banks ...	6,000,000	
	Newton Tank ...	500,000	
	Total ...	11,659,347,200	3,866,591

501. The total expenditure to the 30th June, 1889, on the construction of the Melbourne Waterworks was £2,730,016. The gross revenue received since the opening of the works at the end of 1857* has amounted to £2,756,035, whilst the expenses of maintenance and management amounted to only £367,132.† During 1888–9‡ the ordinary revenue of the waterworks amounted to £182,459 as against £175,122 in the previous year; and the expenditure, including maintenance, to £24,294, as against £22,019 in the previous year. The net revenue in 1888–9 was thus £158,164, being equivalent to 6·11 per cent. of the mean capital cost;‡ as compared with £153,103, or 6·64 per cent. in 1887–8, and £134,818, or 6·44 per cent., in 1886–7. A reference to a previous table § will show that the loans were borrowed at the average nominal rate of only 4·08 per cent.

Revenue and expenditure of Melbourne Waterworks.

502. The Coliban Scheme provides water for domestic and mining purposes, as well as for irrigation to a limited extent, to the Sandhurst and Castlemaine districts. The chief reservoir of this scheme, which is near Malmsbury, has a capacity of over 2,908 million gallons. The cost of the works to 30th June, 1889, was £1,069,254; whilst the gross revenue during the year 1888–9 was £21,332, and the expenses of maintenance and supervision £12,096. The net revenue was thus £9,236, being equivalent to ·863 per cent. of the capital cost, as compared with £12,200 or 1·146 per cent. in 1887–8. The deficiency in 1888–9, after allowing interest on the capital cost at the rate of 4½ per cent., was £38,880.||

Coliban scheme.

* Although the works were commenced in 1853, they were not opened until the 31st December, 1857.

† See Parliamentary Paper A.—No. 4.—17543; Session 1889.

‡ Or the mean of the capital cost at the beginning and end of the year.

§ See table following paragraph 355, in Volume I.

|| See Third Annual General Report by the Secretary for Water Supply, page 19.

Geelong
Water-
works.

503. The Geelong Waterworks provides water for domestic supply to Geelong and suburbs. The chief storage works in this scheme are the Upper and Lower Stony Creek reservoirs, having a capacity of 497 million gallons, and the whole scheme has cost up to the 30th June, 1889, £357,337. The gross revenue for 1888-9 was £9,008, and the cost of maintenance, £2,408. The net revenue was thus £6,600, or 1·846 per cent. of the capital cost, as against £5,690, or 1·594 per cent., in 1887-8. After allowing interest on capital at $4\frac{1}{2}$ per cent., the deficiency for 1888-9 was £9,480.*

Goldfields
reservoirs.

504. There are 26 goldfields reservoirs having an aggregate capacity of nearly 570 million gallons, the largest, at Beaufort, containing about 86 million gallons. These cost £63,691, and were originally constructed by the Government chiefly for mining purposes. They are for the most part leased to municipalities at a nominal rental, but it appears that many of these bodies do not keep them in proper repair. The Secretary for Water Supply in his recent reports has suggested that such of those as are required by the municipalities should be sold absolutely to them, and that the others should be destroyed so as to prevent them becoming sources of danger by bursting in times of heavy rainfalls or floods.

Waterworks
under Local
Bodies.

505. Prior to the establishment of Waterworks Trusts, advances were made from the Government loan account to various municipalities to enable them to construct reservoirs for their respective districts—the principal to be gradually repaid into a sinking fund. The number of such municipalities was 22,† which possessed 21 reservoirs, having a total capacity of nearly 1,400 million gallons, as well as other sources of supply. These works cost £688,081, nearly all of which was advanced from loans, and supply a population of about 77,600. The chief of these reservoirs are the Ballarat reservoirs, now under the Ballarat Water Commission, having an aggregate capacity of nearly 639 million gallons—the Gong Gong reservoir alone containing 427 million gallons; the Beechworth reservoir at Lake Kerferd, with 191 million gallons; the Clunes reservoir at Newlyn, with 207 million gallons; and the Talbot reservoir at Evansford, with 200 million gallons.

Capacity and
cost of
reservoirs.

506. By the following summary of the total storage capacity and total cost of reservoirs or other works for the conservation of water referred to in the foregoing tables and paragraphs, it is shown that the former amounts to over sixteen thousand million gallons, and the latter to upwards of five and a half millions sterling:—

* See Third Annual General Report by the Secretary for Water Supply, page 19.

† There were 24, but 2 have been recently formed into Waterworks Trusts.

CAPACITY AND COST OF WATERWORKS.
(Exclusive of Irrigation Works).

Waterworks under—				Storage Capacity.	Cost of Schemes.
				Gallons.	£
Government—					
Melbourne	...	...	...	6,498,000,000	2,440,000
Coliban ...	...	...	...	4,656,947,200	1,064,050
Geelong ..	...	...	...	504,400,000	356,965
Goldfields	...	...	...	86,000,000	63,691
Local Bodies				1,500,000,000	688,081
Waterworks Trusts—					
Urban Works	...	...	...	6,500,000	244,220
Rural „	...	...	...	3,067,881,000*	643,541
Total				16,319,728,200	5,500,548

507. Throughout Victoria, the duration of leases of farms from private persons was returned in 1888-9 as averaging from 2 to 6 years; the extreme figures being 1 year and 14 years. The average rental of agricultural land per acre was stated to be from 7s. 1d. to 22s. 10d.; the extreme figures being 2s. 6d. and 100s. The average rental of pastoral land per acre was said to be from 2s. 7d. to 8s. 10½d.; the extreme figures being 9d. and 30s. It may be mentioned that 3s. 6d. per annum for as much land as will carry one sheep is considered a fair rental; thus land capable of carrying two sheep to the acre ought to be let for 7s. per acre per annum.†

Leases and rental of farms.

508. Each collector is required to furnish a statement of the price of the principal articles of agricultural produce in his district at the time he makes his rounds. The prices, being those prevailing in the place where the crops are grown, are generally lower than those obtaining in Melbourne, which are quoted in Part Interchange in the first volume of this work. The following is an average deduced from the returns of all the districts during each of the last twenty years:—

Prices of agricultural produce.

PRICES OF AGRICULTURAL PRODUCE, 1870 TO 1889.

During February and March.	Wheat.	Oats.	Barley.	Maize.	Hay.	Potatoes.	Turnips.	Mangolds
	per bushel.	per bushel.	per bushel.	per bushel.	per ton.	per ton.	per ton.	per ton.
	s. d.	s. d.	s. d.	s. d.	s.	s. d.	s. d.	s. d.
1870	4 3	3 7	4 0	4 10	77	75 0	...	40 0
1871	5 4	3 9	4 11	5 3	76	70 0	...	36 0
1872	4 8	2 11½	3 6¼	4 2	64	65 6	...	28 1
1873	4 9	3 5	4 1	3 10	81	67 4	...	24 5

* Capacity of the Wimmera Shire Reservoir only.

† In certain parts of the colony, where the soil is of especially good quality—especially in the Western District—much higher rentals have sometimes been obtained.

PRICES OF AGRICULTURAL PRODUCE, 1870 TO 1889—continued.

During February and March.	Wheat.		Oats.		Barley.		Maize.		Hay.	Potatoes.		Turnips.		Mangolds	
	per bushel.		per bushel.		per bushel.		per bushel.		per ton.	per ton.		per ton.		per ton.	
	s.	d.	s.	d.	s.	d.	s.	d.	s.	s.	d.	s.	d.	s.	d.
1874 ...	5	9	5	6	5	3	5	9	88	118	3	...	...	31	4
1875 ...	4	5	4	3	4	6	4	8	89	89	0	...	...	28	0
1876 ...	4	7	3	3	3	10	4	8	82	87	0	...	...	23	8
1877 ...	5	10	3	7	3	10	4	4	93	114	0	...	...	31	6
1878 ...	5	1	4	6	4	4	5	4	87	115	0	...	...	37	3
1879 ...	4	2	3	6	4	1	4	2	75	92	4	...	...	25	6
1880 ...	4	0½	2	3½	4	8	3	6½	63	69	11	...	...	24	11
1881 ...	4	1¼	2	3	4	11¼	5	0	60	46	3	...	...	24	0
1882 ...	5	0	3	3	3	6	5	4	76	70	0	...	...	25	4
1883 ...	4	9	3	1	4	1	4	7	81	75	4	...	...	30	5
1884 ...	3	8	2	8	3	6	4	8	67	74	8	35	5	29	5
1885 ...	3	4	3	0	3	6	4	5	74	80	0	40	0	34	0
1886 ...	3	10	2	10	3	3	4	1	74	100	0	48	6	24	6
1887 ...	3	9	2	9	3	3	4	4	73	80	0	54	0	28	4
1888 ...	3	4	2	7	3	6	4	2	59	65	0	27	0	24	0
1889 ...	4	7	3	10	4	2	4	10	102	163	2	46	6	30	7

Prices of
agricultural
produce,
1888-9 and
previous
years.

509. The prices of all articles of agricultural produce were extremely low in the early part of 1888, which had also been the case in regard to most of the articles in the four preceding years. The drought which occurred in 1888, however, together with the failure of crops in other parts of the world, caused the prices to rise considerably, the result being that in 1889 the price of wheat was higher than it had been since 1883, of oats than it had been since 1878, of barley than it had been since 1881, of turnips than it had been since 1887, and of mangolds than it had been since 1885; whilst the prices of hay and potatoes were higher than they had been in any of the twenty years named in the table.

Years of
highest and
lowest
prices.

510. It will be observed that the price of wheat was highest in 1877, that of oats, barley, and maize in 1874, that of turnips in 1887, that of mangolds in 1870, and that of hay and potatoes in 1889; also that the price of wheat was lowest in 1885 and 1888, that of barley in 1886 and 1887, that of oats and potatoes in 1881, that of maize in 1880, that of mangolds in 1876, and that of hay and turnips in 1888.

Price of
wheat in
London.

511. The wholesale price of wheat per Imperial quarter* in London during 1888 varied from about 29s. 10d. in February and March to 35s. 6d. in September—the average for the year being 31s. 8d. The price has fallen off considerably since 1882, and in 1886 was remarkable as being by far the lowest during the last 127 years—no lower price having been recorded since 1761, when it was 26s. 9d.† Although in 1887 the price slightly recovered itself, it again fell in 1888, when

* The Imperial quarter is equal to 8 bushels. † See Supplement to *The Statist* for 1887.

it was only 8d. higher than in 1886, and was as much as 13s. 5d. lower than in 1882. The following statement of the average *Gazette* prices (wholesale) during the six years ended with 1887 has been taken from an official source,* and that of the average prices in 1888 and the first five months of 1889 has been taken from the *London Statist*:—

AVERAGE PRICE PER QUARTER OF WHEAT IN LONDON.

Month.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1889.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
January ...	45 7	40 2	38 7	33 7	29 10	35 8	30 5	30 10
February ...	46 0	40 11	37 3	32 8	29 5	33 3	29 10	30 5
March ...	44 7	42 3	37 7	31 10	29 10	32 10	29 11	30 4
April ...	45 11	41 11	37 5	34 1	30 7	32 9	30 5	30 0
May ...	47 3	43 2	37 9	36 8	31 10	33 9	31 4	29 10
June ...	47 5	42 10	37 2	33 6	31 7	35 1	31 5	...
July ...	48 5	42 2	37 0	33 8	31 2	34 4	31 8	...
August ...	50 0	43 6	36 11	33 5	32 5	32 6	34 2	...
September ...	43 11	41 10	33 9	31 3	31 10	29 1	35 6	...
October ...	39 7	40 5	32 3	30 11	29 11	29 2	32 2	...
November ...	40 10	40 3	31 5	30 11	31 2	30 5	32 1	...
December ...	41 2	39 6	31 1	30 6	33 2	31 0	31 2	...
The Year ...	45 1	41 7	35 8	32 10	31 0	32 6	31 8	...

512. Another official authority† gives the highest, lowest, and average *Gazette* price of wheat, barley, and oats in England and Wales as follows, during each of the eleven years ended with 1887:—

Price of wheat, barley, and oats in England.

AVERAGE PRICE OF WHEAT, BARLEY, AND OATS IN ENGLAND AND WALES.

Year.	Average Price per Quarter.								
	Wheat.			Barley.			Oats.		
	Highest Weekly.	Lowest Weekly.	The Year.	Highest Weekly.	Lowest Weekly.	The Year.	Highest Weekly.	Lowest Weekly.	The Year.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1877	68 9	50 1	56 9	44 2	32 5	39 8	29 0	23 4	25 11
1878	52 4	39 0	46 5	44 8	30 9	40 2	28 5	20 7	24 4
1879	50 5	37 7	43 10	43 2	24 0	34 0	26 7	19 2	21 9
1880	48 4	39 5	44 4	37 7	25 7	33 1	28 2	20 2	23 1
1881	52 2	40 9	45 4	35 8	26 11	31 11	24 6	19 5	21 9
1882	51 3	39 2	45 1	36 11	25 10	31 2	25 9	19 1	21 10
1883	43 10	39 0	41 7	35 0	25 6	31 10	24 1	19 1	21 5
1884	39 0	30 5	35 9	32 8	27 1	30 8	23 5	18 10	20 3
1885	38 1	30 2	32 10	32 6	24 10	30 2	23 6	18 1	20 7
1886	33 11	29 0	31 1	29 7	22 4	26 7	21 4	16 7	19 0
1887	36 4	28 5	32 6	29 7	20 5	25 4	17 9	14 7	16 3

* Giffen's Statistical Abstract for the United Kingdom, 1873 to 1887.

† Report on the Agricultural Returns of Great Britain, dated September, 1888, issued from the Privy Council Office, page 118.

Value of
agricultural
produce.

513. The value of the agricultural produce raised in Victoria during the year ended 1st March, 1889, may be estimated at close upon 6 $\frac{2}{3}$ millions sterling. The following table shows the means whereby such an estimate is arrived at:—

VALUE OF AGRICULTURAL PRODUCE,* 1888-9.

Name of Crop.	Gross Produce and Price.					Estimated Value.
			£	s.	d.	£
Wheat	8,647,709 bushels	@	0	4	7	1,981,767
Oats	2,803,800 „	@	0	3	10	537,395
Barley	1,131,427 „	@	0	4	2	235,714
Other cereals	639,623 „	@	0	3	10	122,594
Grass and clover seed	17,444 „	@	0	4	0	3,489
Potatoes	131,149 tons	@	5	10	0	721,320
Onions	4,430 „	@	10	16	0	47,844
Chicory	811 „	@	10	0	0	8,110
Other root crops	20,784 „	@	2	0	0	41,568
Hay	308,117 „	@	4	0	0	1,232,468
Green forage	192,515 acres	@	2	10	0	481,287
Tobacco	13,355 cwt.	@	2	16	0	37,894
Grapes, not made into wine	48,712 „	@	0	10	0	24,356
Wine	1,209,442 gallons	@	0	4	0	241,888
Brandy	2,994 „	@	0	10	0	1,497
Hops	5,519 cwt.	@	8	8	0	46,360
Other crops	1,056 acres	@	10	0	0	10,560
Garden and orchard produce	27,533 „	@	30	0	0	825,990
Total						6,601,601

Specific
weight of
crops.

514. The standard weight of crops in Victoria is reckoned to be 60 lbs. to the bushel for wheat, 40 lbs. for oats, 50 lbs. for barley, and 56 lbs. for maize. The actual weight, however, differs in different districts. The wheat, during 1888-9, ranged from 55 lbs. to 66 lbs.; oats, from 35 lbs. to 50 lbs.; barley, from 40 lbs. to 60 lbs.; and maize, 45 lbs. to 60 lbs. In the same year, taking the districts as a whole, the average weight per bushel of wheat was 61 lbs.; of oats, 41 lbs.; of barley, 51 lbs.; and of maize, 56 lbs.

Rates of
agricultural
labour.

515. The following figures show the average rates paid for agricultural labour in the last two years. Rations are allowed in all cases in addition to the wages quoted, except in the case of threshers, hop-pickers, and maize-pickers:—

* For a summary of the estimated value of agricultural produce during a series of years, see table, "Value of Agricultural, Pastoral, and Mining Produce," *post*.

RATES OF AGRICULTURAL LABOUR,* 1888 AND 1889.

Description of Labour.	1887-8.	1888-9.
	s. d.	s. d.
Ploughmen, per week	21 1	22 3
Farm labourers, „	18 1	19 0
Married couples, „	25 4	26 1
Females, „	11 10	11 3
Mowers, „	33 5	32 0
„ per acre	5 5	5 1
Reapers, per week	32 9	30 5
„ per acre	10 5	12 9
Threshers, per bushel (without rations) ...	0 8½	0 8¼
Hop-pickers, „ „	0 3¼	0 3½
Maize-pickers, per bag „	0 7½	0 5¼

516. The number and power of steam engines used on farms, and the value of farming plant and improvements, were returned as follows for the year under review and the previous one:—

Plant and improvements on farms.

STEAM ENGINES, IMPLEMENTS, AND IMPROVEMENTS ON FARMS, 1888 AND 1889.

	1887-8.	1888-9.
Steam engines, number	605	640
„ horse-power	4,452	5,006
Value of farming implements and machines ...	£2,799,060	£2,782,848
„ improvements on farms	£15,660,135	£15,242,108

517. The following figures, which have been obtained by means of averages struck from the returns of the collectors in all the districts, show the rates paid for machine labour in the last two years:—

Machine labour.

MACHINE LABOUR, 1888 AND 1889.

Average Rates paid for—	1887-8:	1888-9:
	s. d.	s. d.
Machine reaping, per acre { With binding ...	8 1	7 7
„ „ { Without binding ...	4 8	4 7
„ mowing, „	4 10	4 8
„ threshing, per 100 bushels:—		
With winnowing	22 6	21 5
Without winnowing	18 8	12 7

518. Information as to the numbers of live stock kept was obtained at the census of 1881, and since that time the figures have been brought on by estimates furnished by the municipal authorities. The following are the census numbers, and the numbers in March, 1889, as derived from the municipal estimates alluded to:—

Live stock, 1881 and 1889.

* See also table of Wages at the end of Part "Interchange" in the first volume of this work.

LIVE STOCK, 1881 AND 1889.

Period.	Horses.	Cattle.			Sheep.	Pigs.
		Milch Cows.	Exclusive of Milch Cows.	Total.		
3rd April, 1881 (enumerated)	275,516	329,198	957,069	1,286,267	10,360,285	241,936
March, 1889 (estimated)	323,115	356,625	1,014,035	1,370,660	10,818,575	245,818
Increase ...	47,599	27,427	56,966	84,393	458,290	3,882

Goats, asses, and mules.

519. Besides the live stock returned at the census, as shown in the table, 68,426 goats, 135 asses, and 78 mules were then enumerated. No attempt has been made to bring these numbers on to any later period.

Estimates not quite reliable.

520. The estimates for 1889, as compared with the numbers returned at the census, show an increase in all kinds of stock. Too much reliance, however, must not be placed on any statement of the numbers of live stock, except such as is derived from the returns of a general census.

Stock per square mile.

521. Speaking roughly, there are now in Victoria 4 horses, 15 head of cattle, 123 sheep, and 3 pigs, or, taking the different kinds together, 145 head of stock of these descriptions, large and small, to the square mile.

Poultry.

522. Information respecting the numbers of poultry kept is not obtained except at the taking of a census. The following is a statement of numbers of the different kinds, according to the returns of the censuses of 1871 and 1881:—

POULTRY, 1871 AND 1881.

Year of Census.	Number of Owners of Poultry.	Geese.	Ducks.	Fowls.	Turkeys.	Pea Fowls	Guinea Fowls.	Pheasants	Ostriches.
1871 ..	81,347	83,025	137,355	1,636,782	69,756	970	3,542	199	16
1881 ..	97,152	92,654	181,698	2,328,521	153,078	1,701	2,307	40	..
Increase	15,805	9,629	44,343	691,739	83,322	731	1,235	159	16
Decrease	..	..	..	..	..	..	..	..	..

Increase or decrease of poultry.

523. It is seen that in ten years an increase of nearly 16,000 took place in the number of keepers of poultry, also a fair increase in all the different kinds of poultry except guinea fowls. Pheasants and ostriches, although not strictly speaking poultry,

were returned in 1871, but no ostriches at the latter period; moreover, pheasants fell off in number from 199 in 1871 to 40 in 1881.

524. The live stock in the United Kingdom and any British Possessions, respecting which the information is available, is officially stated to have been as follows in the years named:—

Live stock
in British
Posses-
sions.

LIVE STOCK IN BRITISH POSSESSIONS.

Possessions.	Year.	Number of—			
		Horses.	Cattle.	Sheep.	Pigs.
The United Kingdom ...	1888	1,936,702	10,268,600	28,938,716	3,815,643
Malta ...	1887	7,171	10,673	14,609	...
Cyprus ...	1886	53,243	54,658	289,837	...
India ...	1885-88	1,002,281	60,206,499	26,689,327	518,700
Ceylon ..	1886	3,973	834,433	58,514	...
Mauritius ...	1884	12,000	15,000	30,000	30,000
Cape of Good Hope ...	1888	262,521	1,266,552	13,073,192	140,895
Natal ...	1887	54,326	611,794	484,288	46,306
Canada ...	1881	1,059,358	3,514,989	3,048,678	1,207,619
Newfoundland ...	1884	5,436	19,884	40,326	...
Jamaica ...	1887	65,900	116,000	11,626	...
Falkland Islands ...	1885	3,009	7,934	516,975	...
Australasia* ...	1887-88	1,439,484	8,959,173	97,903,922	1,206,262
Fiji ...	1887	647	6,778	6,508	1,711

525. The following table contains a statement of the number of horses, cattle, sheep, and pigs in the principal Foreign countries. The information has been derived entirely from official documents:—

Live stock
in Foreign
countries.

LIVE STOCK IN FOREIGN COUNTRIES (000's OMITTED).

Country.	Year.	Number of—				
		Horses.	Cattle.	Sheep.	Pigs.	
EUROPE.						
Austria	...	1880	1,463,	8,584,	3,841,	2,721,
Belgium	...	1880	272,	1,383,	355,	646,
Bulgaria	...	1887	...	...	6,872,	394,
Denmark	...	1881	348,	1,470,	1,549,	527,
France	...	1886	2,938,	13,275,	22,688,	5,775,
Germany	...	1883	3,522,	15,787,	19,190,	9,206,
Greece	108,	164,	3,465,	180,
Holland	...	1886	273,	1,531,	803,	458,
Hungary	...	1884	1,749,	4,879,	10,595,	4,807,
Italy	...	1882	660,	4,783,	8,596,	1,164,
Norway	...	1875	152,	1,017,	1,686,	101,

* For particulars relating to each colony, see third folding sheet *ante*, and Appendix A. *post*.

LIVE STOCK IN FOREIGN COUNTRIES (000's OMITTED)—*continued.*

Country	Year.	Number of—			
		Horses.	Cattle.	Sheep.	Pigs.
Portugal ...	1870	....	625,	2,977,	971,
Roumania ...	1888	554,	2,260,	4,807,	770,
Roumelia (Eastern) ...	1883	44,	371,	1,859,	107,
Russia (European) ...	1883	17,881,	23,628,	46,725,	9,362,
Servia ...	1882	123,	827,	3,621,	1,068,
Spain ...	1878	310,	2,353,	16,939,	2,349,
Sweden ...	1886	485,	2,381,	1,444,	548,
Switzerland ...	1886	98,	1,211,	338,	394,
ASIA.					
Japan ...	1885	1,548,	1,060,	...	...
Java and Madura ...	1885	518,	4,530,	...	...
Russia in Asia ...	1874-83	1,070,	3,716,	10,612,	...
AFRICA.					
Algeria ...	1886	175,	1,198,	9,358,	87,
Egypt ...	1887	21,	462,	958,	...
Orange Free State ...	1881	132,	465,	5,056,	...
AMERICA.					
Argentine Republic ...	1888	5,000,	23,000,	80,000,	300,
Brazil ...	...	...	30,000,	...	...
Costa Rica ...	1884	...	206,	...	...
Guadaloupe ...	1880	6,	10,	14,	14,
Guatemala ...	1885	118,	494,	460,	...
Nicaragua ...	1884	...	400,	...	...
Paraguay ...	1887	62,	730,	32,	12,
United States ...	1889	13,663,	50,331,	42,599,	50,302,
Uruguay ...	1885	635,	5,924,	17,050,	100,
Venezuela ...	1883	292,	2,927,	3,491,	977,

Live stock
of the
world.

526. The following summary of the live stock of the world has been recently published by Mr. J. R. Dodge, statistician to the Department of Agriculture of the United States:*

LIVE STOCK OF THE WORLD (000's OMITTED).

Countries.	Horses.	Cattle.	Sheep.	Pigs.	Mules and Asses.	Goats.
Europe ...	33,253,	97,240,	186,557,	44,719,	3,727,	19,513,
Asia ...	4,195,	70,402,	36,649,	519,	1,182,	1,227,
Africa ...	656,	4,018,	28,959,	304,	600,	5,340,
North America ...	14,918,	55,093,	46,174,	51,530,	2,311,	15,
South America ...	5,992,	57,659,	101,090,	1,388,	1,512,	3,017,
Australasia ...	1,440,	8,966,	97,912,	1,208,	...	25,
Oceania ...	1,	3,	3,	20,	...	1,
Total ...	60,455,	293,381,	497,344,	99,688,	9,332,	29,138,

* See Report No. 59 (new series) for January and February, 1889, Government Printing Office, Washington.

527. The numbers of live stock slaughtereded in Victoria are furnished by the local bodies, but it is probable the returns do not in every case include the animals slaughtered by private persons, and on farms and stations, and, therefore, that more were really slaughtered than the figures show. The following were the numbers returned for 1887 and 1888, those for the latter year being in all cases larger than those for the former :—

LIVE STOCK SLAUGHTERED, 1887 AND 1888.

Year.	Cattle and Calves.	Sheep and Lambs.	Pigs.
1887	216,345	2,234,730	123,023
1888	249,475	2,366,525	144,528
Increase ...	33,130	131,795	21,505

Live stock
slaughtered

528. The purposes to which the carcasses of the slaughtered animals were appropriated in 1888 were returned as follow :—

Purposes
for which
stock was
slaughtered

PURPOSES FOR WHICH LIVE STOCK WAS SLAUGHTERED, 1888.

Description of Live Stock.	Numbers Slaughtered for—			
	The Butcher and Private use.	Preserving or Salting.	Boiling down for Tallow or Lard.	Total.
Cattle and Calves	249,095	380	...	249,475
Sheep and Lambs	2,353,281	6,446	6,798	2,366,525
Pigs	74,160	70,368	...	144,528
Total	2,676,536	77,194	6,798	2,760,528

529. In the 10 years ended with 1887, the returns show the average number slaughtered annually for preserving and salting to have been, of cattle 783, of sheep and lambs 90,544, and of pigs 45,894. These numbers, as regards pigs, are below, but as regards cattle and sheep, are much above the average numbers slaughtered for the same purposes in 1888.

Stock
slaughtered
for
preserving.

530. The quantity of wool produced in Victoria during the year 1888 may be set down as 54,143,961 lbs.,* valued at £2,577,107. These figures represent the excess of exports over imports during the year, to which is added the quantity and value of wool used in

Wool pro-
duced, 1887
and 1888.

* The quantity of *Victorian* wool exported in 1888, according to the Customs returns, was 89,310,348 lbs., or considerably more than the total quantity given above as produced in Victoria:— (See footnote to *Wool*, Order 24, in Table of Imports and Exports, Volume I., page 277.) There is no doubt, however, that, in order to obtain the higher price generally realized in England and elsewhere for Victorian wool, much wool produced outside the colony is entered at the Customs as Victorian.

Victorian woollen mills. In the previous year, the quantity produced, similarly estimated, was 48,420,119 lbs., valued at £2,400,515.*

Wool produced in Australasian colonies, 1884 to 1887.

531. The following is a statement of the quantity and value of wool produced in the various Australasian colonies in 1887 and the three preceding years. The estimate for each of the other colonies has been made upon the same principle as that for Victoria, viz., by substituting the difference between the imports and the exports for the entry as to the origin of the wool made at the Customs, to which has been added an estimate for the quantity used for manufacturing purposes during each of the years :—

WOOL PRODUCED IN THE AUSTRALASIAN COLONIES, 1884 TO 1887.

Colony.	1884.	1885.	1886.	1887.
QUANTITY.	lbs.	lbs.	lbs.	lbs.
Victoria ...	61,369,000	53,390,100	57,439,634	48,420,119
New South Wales ...	171,612,279	165,857,466	171,228,430	216,650,129
Queensland ...	35,525,977	42,472,071	28,700,546	47,482,926
South Australia ...	47,296,784	45,329,646	40,991,388	42,198,632
Western Australia ...	4,272,948	4,968,000	6,139,917	6,675,713
Tasmania ...	8,215,101	5,774,142	8,300,180	9,846,830
New Zealand ...	82,138,718	87,470,035	92,741,733	90,776,881
Total ...	410,430,807	405,261,460	405,541,828	462,051,230
DECLARED VALUE.	£	£	£	£
Victoria ...	3,879,620	2,960,890	2,778,160	2,400,515
New South Wales ...	8,895,543	7,122,366	6,947,526	8,925,516
Queensland ...	1,889,504	1,779,682	1,413,908	2,368,711
South Australia ...	1,823,431	1,411,872	1,227,007	1,323,879
Western Australia ...	249,255	248,400	332,519	333,785
Tasmania ...	453,567	260,480	319,227	422,531
New Zealand ...	3,342,509	3,240,630	3,200,499	3,453,278
Total ...	20,533,429	17,024,320	16,218,846	19,228,515

Wool produced in each colony.

532. It appears by the figures that Victoria, in 1887, did not produce a fourth as much wool as New South Wales, and produced not much more than half as much as New Zealand. She, however, produced rather more than Queensland, and a seventh more than South Australia, in both of which colonies the clip was much greater, whilst in Victoria it was less than in the previous year. Western Australia, notwithstanding the immense extent of her territory, produced a third less than the island of Tasmania.

Wool produce of four years compared.

533. The figures also show that the wool produced in the Australasian colonies, in 1887, was more by 56½ million pounds than in 1886, by nearly 57 million pounds than in 1885, and by nearly 52 million

* This amount differs slightly from that published in the last edition of this work.

pounds than in 1884; and, further, that the value of such wool was greater in 1887 than in 1886 by £3,000,000, and than in 1885 by £2,200,000, but less than in 1884 by £1,300,000.

534. The following statement of the wool produced in one year in various countries has been computed, except as regards Australasia, from figures given in the Third Annual Report of the Statistical Institute of Holland* :—

Wool produced in various countries.

WOOL PRODUCED IN VARIOUS COUNTRIES.

	lbs.		lbs.
Australasia (1887) ...	462,051,230	Italy (1874) ...	21,378,800
Russia (1878) ...	390,548,800	Asiatic Turkey and Persia	13,224,000
Argentine Republic (1882)	244,666,040	Natal (1881) ...	12,496,680
United States (1882) ...	233,073,000	Austria (1881) ...	10,909,800
United Kingdom (1882) ...	127,942,200	Portugal ...	10,358,800
France (1879) ...	90,319,920	Belgium (1865) ...	4,408,000
Spain (1878) ...	66,120,000	British North America (1881)	3,570,480
Germany (1881) ...	54,879,600	Sweden (1870) ...	3,306,000
Cape Colony (1881) ...	42,427,000	Other countries ...	96,976,000
Uruguay (1880) ...	41,369,080		
Hungary (1880) ...	35,682,760		
British India (1881-2) ...	21,400,840	Total	1,987,109,030

535. The average price per lb. of Victorian wool in 1888, based upon its declared value before leaving this colony, as obtained from the Customs returns of exports, was not quite 10½d., as against nearly 10½d. in 1887, 11⅔d. in 1886 and 1885, and 12⅔d. in 1884.† There was thus a fall of ½d. per lb. as compared with 1887, of 1¼d. per lb. as compared with 1886 or 1885, and of 2⅓d. per lb. as compared with 1884. This would depreciate the wool produced in Victoria during 1888 by £112,800 as compared with a similar quantity in 1887, by £282,000 as compared with a similar quantity in 1886 or 1885, and by £620,400 as compared with a similar quantity in 1884.‡

Fall in price of wool.

536. In the foregoing paragraph, the price given is the average for all descriptions of wool included in the one total, so that it is possible that a variation in the quality may to a certain extent account for the difference in the declared value. The fall in the price of wools of like quality will, however, be readily recognised by means of the figures in the following table, which have been kindly supplied for this work by Messrs. Goldsborough, Mort and Co. (Limited), Melbourne :—

Price of wool in Melbourne.

* See *Bijdragen van het Statistisch Instituut*, Amsterdam, 1887, page 19; there given in kilogrammes, each of which has been assumed to be equal to 2·204 lbs.

† These prices were incorrectly stated in the last edition of this work.

‡ See also Part "Interchange," in the first volume of this work, where the export value of all wool—not Victorian wool only—is dealt with.

AVERAGE PRICE OF WOOL IN MELBOURNE, 1885 TO 1889.

Description of Wool	Average price per lb. during the years—				
	1884-5.	1885-6.	1886-7.	1887-8.	1888-9.
Greasy—	d.	d.	d.	d.	d.
Merino	10½	8½	10½	9½	10½
Crossbred	9	8	9	8	10
Fleece or washed *	20	16	17	15½	18
Scoured *	19	15	18	16	17½

Price of
Australian
wool in
London.

537. The average price of Australian wool in London, as officially computed from the returns of imports by the Agricultural Department† of the Privy Council, was in 1887 1¼d. higher than in 1886, the same as in 1885, but lower than in any other previous years. The following are the results obtained for the twenty-three years ended with 1887:—

AVERAGE PRICE OF AUSTRALIAN WOOL IN LONDON, 1865 TO 1887.

per lb.				per lb.			
s. d.				s. d.			
1865	...	...	1 7⅜	1877	...	...	1 3
1866	...	...	1 8⅓	1878	...	...	1 2½
1867	...	...	1 7½	1879	...	...	1 2½
1868	...	...	1 3⅓	1880	...	...	1 2¾
1869	...	...	1 2⅓	1881	...	...	1 2½
1870	...	...	1 3¼	1882	...	...	1 0½
1871	...	...	1 2¼	1883	...	...	1 0½
1872	...	...	1 3	1884	...	...	1 0½
1873	...	...	1 3¼	1885	...	...	0 10½
1874	...	...	1 2¾	1886	...	...	0 9¼
1875	...	...	1 4¼	1887	...	...	0 10½
1876	...	...	1 3¼				

Price of wool
of each
Austral-
asian
colony in
London.

538. The Supplement to the *Statist* (London journal) of the 11th February, 1888, gives the following quotations of the price of greasy wool produced in four of the Australasian colonies during the eight years ended with 1887. The wool is described as “good average greasy” in the case of Victoria; “average greasy” in the case of New South Wales and South Australia; and “superior greasy” in the case of New Zealand. The average price of “good to superior” Victorian wool is also given:—

* Comprising both merino and crossbred.

† Report dated September, 1888, page 119.

AVERAGE PRICE OF THE WOOL OF EACH AUSTRALASIAN COLONY
IN LONDON, 1880 TO 1887.

Year.	Prices per lb. on 31st December.					
	Greasy Wool, the Produce of—					Good to Superior Wool, the Produce of Victoria.
	Victoria.	New South Wales.	South Australia.	New Zealand.	Australia Crossbred (Superfine).	
	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>
1880 ...	13	11	10	13½	14½	23½
1881 ...	12	10½	9½	12½	14	22
1882 ...	12½	10½	9	12½	13½	22½
1883 ...	12½	10	9	12½	13½	22
1884 ...	11½	9½	8	12	13½	22½
1885 ...	9½	8	6½	10	11½	17
1886 ...	10	8	6½	10½	12	18
1887 ...	10	8	6½	11	12½	18

539. The following is an estimate of the gross value of pastoral produce raised on holdings of all descriptions in 1888-9:—

Value of
pastoral
produce.

VALUE OF PASTORAL PRODUCE, 1888-9.

Nature of Produce.	Value.
	£
Milk, butter, and cheese, from 356,625 milch cows kept, @ £8 10s. ...	3,031,313
Estimated value of stock produced in 1888:—	
Cattle, 356,625, viz., 237,750, @ £8, and 118,875 (calves), @ 30s.	2,080,313
Sheep, 2,704,644, @ 7s. 6d. ...	1,014,242
Pigs, 73,740, @ £2 10s. ...	184,350
Horses, 16,156, @ £8 ...	129,248
Excess of exports over imports of wool, Customs value ...	2,466,870
Estimated value of wool used in the colony for manufacturing purposes, 1,653,554 lbs., @ 1s. 4d. ...	110,237
Total ...	9,016,573

NOTE.—The principle on which the numbers of “stock produced” have been estimated is as follows:—It has been assumed that the increase of cattle amounted to one to every milch cow, and that one-third of the calves born were slaughtered for veal, the remainder taking the place of the older cattle slaughtered. The increase of sheep has been reckoned at 25 per cent. on the total number of both sexes over six months old in the colony, that being the proportionate increase ascertained by Mr. A. J. Skene, the late Surveyor-General of Victoria, to have taken place during a series of years on nearly 3¼ millions of sheep on 34 stations situated in various parts of the colony. The increase of pigs and horses has been arbitrarily estimated at 30 and 5 per cent. respectively upon the total numbers of such stock. The value per head set down for the different kinds of stock is intended to represent the average value per head of all the stock of each kind in the colony, young and old; for although the stock born in the year would be only six months old, on the average, when the year terminated, and would, consequently, not be of so high a value as the figures indicate, yet all the growing or fattening stock may be considered to have become more valuable during the year, and the increase of bulk, and consequently of value, of such stock may fairly be set down as part of the year's produce as much as the stock actually born therein, the numbers of the latter being taken as a basis whereto such values may be applied. The quantity of wool manufactured in Victoria has been ascertained from the various woollen mills. No estimate has been made of the value of meat, tallow, lard, hides, skins, horns, hoofs, bones, etc., as this is supposed to be included in the value of stock produced.

Australasian
fresh meat
in London.

540. Australian-killed fresh meat was delivered in London for the first time in the year 1880, when the supply consisted of 60 carcasses of beef and 555 of mutton. New Zealand fresh meat was first delivered in 1882. The following, according to the Agricultural Department of the Privy Council,* are the quantities delivered from Australasia in the seven years ended with 1887:—

AUSTRALIAN AND NEW ZEALAND-KILLED FRESH MEAT DELIVERED
IN LONDON, 1881 TO 1887.

			cwt.				cwt.
1881	...	...	11,300	1885	...	...	230,400
1882	...	...	34,540	1886	...	...	294,220
1883	...	...	93,420	1887	...	...	302,140
1884	...	...	222,560				

Price of
meat in
London.

541. In the same seven years the average prices of beef and mutton in London, by the carcass, are quoted as follow †:—

AVERAGE WHOLESALE PRICE OF BEEF AND MUTTON IN LONDON,
1881 TO 1887.

	Beef per lb.	Mutton per lb.
1881 ...	4½d. to 7¼d.	5d. to 9d.
1882 ...	4¾d. „ 8d.	5½d. „ 9½d.
1883 ...	5d. „ 8d.	5¾d. „ 9¾d.
1884 ...	4½d. „ 7¾d.	5d. „ 8¾d.
1885 ...	3¾d. „ 6¾d.	4½d. „ 7½d.
1886 ...	3½d. „ 6½d.	4d. „ 8d.
1887 ...	3d. „ 5½d.	3½d. „ 7d.

Rabbits

542. Tame rabbits were kept in Victoria during the early years of the colony, but rabbits were first turned out upon an extensive scale by a landed proprietor in the Western district. They bred rapidly, and for several years there was a demand for specimens in most districts of the colony for breeding purposes. At that time no one seems to have thought of the nuisance they might eventually become, and of the large expenditure which would be necessary to keep down their numbers. There are now few parts of Victoria which are not infested with them,‡ although, in consequence of the vigorous efforts which have been made by the Government, by Shire Councils, and by private individuals, to suppress the evil, there are not so many as formerly. It is found, however, that if efforts are relaxed they breed so rapidly that they soon become as numerous as ever. Some persons have advocated the introduction of

* Report dated September, 1888, page 106.

† *Ibid.*, pages 112 and 113.

‡ It is estimated that their ravages extend over 40 millions out of the 56 millions of acres in the colony of Victoria.

animals hostile to rabbits, such as ferrets, weasels, or the mangouste (Indian ichneumon*), but where this has been tried it has been found that the introduced animals have been so destructive to poultry that the rabbits were the lesser evil of the two; it was also discovered that, as a rule, these animals only attack rabbits when hungry, and cease to do so as soon as they become satiated, consequently it would have been necessary to introduce immense numbers to cope with the multitude of rabbits with which the colony is infested. The most successful way of destroying rabbits has been found to be poisoning either with phosphorized oats or wheat, or with arsenic mixed with bran or chaff, or else with the fumes of bisulphide of carbon, which, being placed in their burrows, speedily effects the desired object if all the entrances are properly stopped. They are also largely trapped and shot, in which case their flesh is available for food. The following account of the steps which have been taken to exterminate the rabbits has been supplied by the branch of the Department of Crown Lands under which the Rabbit Suppression Acts are administered:—

RABBIT EXTERMINATION.

The first *Rabbit Act* came into force on the 28th December, 1880. Its principal provisions are:—

Owners or occupiers are liable for destruction of rabbits on their land.

Licensees, part 2 *Land Act* 1869 and section 49 *Land Act* 1869, deemed owners.

Pastoral tenants not deemed owners or occupiers, and were exempted (altered by Act 813).

Crown liable for all unoccupied Crown land and land held under pastoral licence, but not liable to be served with notice by shire council to destroy rabbits, nor to be summoned in default of compliance (altered by Act 813).

The enforcement of the provisions of the Act (*re* the destruction of vermin on all private lands) entrusted to the shire councils with power to compel destruction of log, brushwood fencing, and stone walls when deemed to be harbour for vermin. Occupier failing to clear land after notice, council to clear and recover expenses in any court of competent jurisdiction.

The second Act No. 721 in force on the 24th December, 1881, repealed section 7 of Act 683, conferred power on inspectors of the councils to serve notices and to enter and destroy (if not complied with after 14 days) and recover costs.

Under the third Act No. 813 in force the 12th December, 1884:—

All licensees are owners and liable to be served with notices to destroy and be summoned in default of compliance after 14 days, shire to do the work and recover. It also places the Board of Land and Works in the same position, rendering it liable to be called upon to clear unoccupied Crown lands of rabbits, dead timber, and other harbour.

Gives power to Board of Land and Works to arrange with any shire to destroy rabbits on Crown lands on terms to be agreed upon.

Enables shires to recover expenses incurred in clearing private holdings before two justices in lieu of court of competent jurisdiction.

Authorizes shire council inspector to act on his own authority in lieu of waiting directions of shire council.

* *Herpestes mangos* of Desmarest.

Provides that any person having a live rabbit in his possession be liable to a penalty up to £100 on conviction.

Provides that it shall be the duty of every shire council to take simultaneous action to destroy vermin on any day appointed by the Governor-in-Council, and continue such action till district is certified as clear. Any shire not complying may be proclaimed an infested district by Governor-in-Council, and a local committee appointed to attend to the matter, with power to perform all duties. Expenses not recoverable from an owner to be a debt due by council, and if not paid may be satisfied out of municipal subsidy.

Gives power to proclaim any animal a natural enemy of the rabbit and protect it.

The foregoing is a brief extract of the principal features of the present Rabbit Acts, and for further information it may be stated there are about 102 shires and boroughs in the colony of Victoria more or less infested with rabbits, but in many of them the pests have not, up to the present, increased to a sufficient extent to cause any damage. Active operations to destroy the vermin on Crown lands were not taken until towards the latter end of 1881. During the first two years the operations extended to only about 20 shires; but to such an extent had the evil spread, that it was early found imperative to extend the scope of operations, and at the present time the Department is working Crown lands in upwards of 40 shires.

The amounts expended on rabbit extermination are as follow :—

1879-80	...	...	£1,280	1884-85	...	...	£22,177
1880-81	...	...	£2,600	1885-86	...	...	£24,833
1881-82	...	...	£12,890	1886-87	...	...	£21,065
1882-83	...	...	£9,883	1887-88	...	...	£20,551
1883-84	...	...	£10,063	1888-89	...	...	£18,000*

These amounts include expenditure on labour, inspection, materials, cartage, etc., and for working unoccupied Crown lands; the administration and clerical portion of the work entail in addition a cost of less than £150 per annum.

The pests have of late years been largely diminished, and operations on the whole attended with marked success. The greatest obstacle in the way of effectually clearing land of the pest is found in the difficulty of enforcing simultaneous and continuous action; when once this difficulty is overcome by the whole operations being placed in the hands of the Government, with sufficient powers to enforce the working of all the infested lands at one time, the rabbits will soon be effectually destroyed, and a moderate expenditure suffice to keep them within a very small limit.

A few years ago, on one estate alone, upwards of £15,000 was expended in efforts to clear the land from the pest.

During the past eleven years it is estimated that, including the expenditure of private individuals, shire councils, and the Government, loss by depreciation in grazing capabilities of land and destruction to crops, the colony has sustained a loss of about three millions by the introduction of these four-footed rodents; but the damage has been immensely reduced during the last three years, and at present is not great, though any relaxation of efforts would in two or three years result in the animals being as numerous as ever. Phosphorized wheat and oats, bran and chaff and arsenic, strychnine water, arsenic and carrots, have been amongst the most successful poisons, but where burrows abound, and can be got at, bisulphide of carbon is the most deadly and effective enemy of the rabbit, and never fails to destroy them when properly used, unless the soil be of too porous a nature to hold the gas; in this case digging out is the best remedy. In concluding, it may interest some persons who are not fully aware of the prolific nature of rabbits, to state that in three years, under favourable circumstances, two pairs of rabbits, if undisturbed in any way and sufficient food abounded, would increase to the enormous number of five millions, which fully shows the necessity that exists for continuous and vigorous action to destroy them.

Exports of
rabbit
skins.

543. In the twelve years ended with 1888, over 35 millions of rabbit skins, valued at £246,000, have been exported from Victoria.

* Approximate figures.

In addition to these, many have been used in the colony by hat manufacturers* and others, and large numbers have doubtless been destroyed or allowed to decay. The following are the exports of rabbit skins in the period referred to :—

EXPORTS OF RABBIT SKINS, 1877 TO 1888.

Year.	Rabbit Skins Exported.		Year.	Rabbit Skins Exported.	
	Number.	Value.		Number.	Value.
		£			£
1877	700,565	5,790	1884	4,963,371	37,243
1878	711,844	6,206	1885	3,424,259	23,548
1879	1,036,372	7,322	1886	910,609	6,800
1880	3,309,408	21,674	1887	2,663,314	16,294
1881	4,473,108	32,217	1888	3,967,533	20,759
1882	4,929,432	37,538			
1883	4,245,596	30,364	Total	35,335,411	245,755

544. The number of couples of rabbits received at the Melbourne fish market, the number sold, and the number condemned during the last three years, were as follows :—

Rabbits sent
to market
in Mel-
bourne.

RABBITS SENT TO MELBOURNE MARKET.

Year.	Number of Couples of Rabbits.		
	Sold.	Condemned.	Total.
1886-7	346,856	4,460	351,316
1887-8	418,618	2,272	420,890
1888-9	474,384	13,458	487,842
Total	1,239,858	20,190	1,260,048

545. For some time past experiments have been in progress in various parts of Australia upon a method of destroying rabbits by disease. The proposition last under consideration was that of M. Pasteur, the eminent French physician and chemist, who proposed to infect the rabbits with the rabbit itch or scab, a complaint which results from the presence of a parasite called *sarcoptes cuniculi*. To test this method the Government of New South Wales appointed a Royal Commission, which held numerous sittings and took a large amount of evidence upon the subject. The following account of the

Destruction
of rabbits
by disease.

* Mr. E. Shaw, the manager of the Denton Mills Hat Factory, reports that during the three years ended with 1888, about 600 dozen rabbit skins had been used weekly in that establishment. This would give a total of 374,400 skins yearly, or 1,123,200 in the three years.

report of this Commission, which was unfavourable to M. Pasteur's scheme, has been supplied by Mr. S. J. Black, the officer who has charge of the administration of the *Rabbit Act* in the Crown Lands Department:—

The Royal Commission appointed by the New South Wales Government to report on Pasteur's method of destroying rabbits by disease (chicken cholera) has reported unfavourably to this scheme. The Commission found, after a series of experiments extending over 9 months, that, while rabbits are easily killed by the addition of the microbes of chicken cholera to their food, the disease does not spread freely from infected to healthy rabbits. The disease in rabbits differs widely in this respect from chicken cholera as seen among fowls. In poultry yards it is virulently infective. The inquiries conducted on behalf of the Commission furnish a satisfactory explanation of the difference. Fowls infected with chicken cholera suffer not only from blood poisoning but also from severe diarrhoea, and the droppings have power to spread the disease. On the contrary, infected rabbits, with few exceptions, remain free from diarrhoea, and die of pure blood poisoning. The microbes are chiefly in the blood. If these microbes are to infect other rabbits in any number, the bodies of the rabbits dead from the disease must be broken up by decomposition, or by the agency of carrion birds, etc., and the microbes so set free must contaminate the food of other rabbits. If the dead bodies lie in the burrows it will be remembered that rabbits do not feed there. If they lie in the open and the microbes are set free, a temperature of 124° Fah., or the mere process of drying at a much lower temperature will suffice to destroy their virulence. Moreover, the experiments of Dr. Katz indicated that while the microbes retain their virulence for a time when mixed with putrefying matter, there is a limit to their power of survival. Generally, therefore, it appears that the destruction of rabbits on a large scale by chicken cholera can be obtained only by feeding the rabbits with the microbes of the disease, and as other poisons such as arsenic and phosphorus, to the use of which no objection can be taken, will kill rabbits to which they are administered, the Commission recommended that permission should not be given to disseminate broadcast through Australasia a disease which has not been shown to exist in these colonies which in other countries prevail in disastrous epidemics among fowls, but which has never been known to prevail naturally among rabbits. About 1,400 schemes for the destruction of rabbits by means other than disease were referred to this Commission. It was intended that the schemes should be classified and reported upon by a special committee prior to the publication of the report, but the mass of the correspondence rendered it impossible to complete this labour. The Commissioners state that they trust to be able within a short time to submit this classified list of schemes with notes on the merits of the several proposals.

Rabbit fence
between
Victoria
and South
Australia.

546. With the view of keeping the rabbits and wild dogs on the South Australian side of the border from crossing into Victoria, a fence of wire netting is in course of erection by the Victorian Government, commencing at about 36° 45' south latitude and extending to the Murray, a distance of 150 geographical miles. About two-thirds of this has been completed, and the remainder is being rapidly proceeded with. From the commencing point of this fence the Government of South Australia have fenced south for about 36 miles along the Victorian frontier, but it is not known whether they intend to continue the fencing to the sea. As the distance from the Murray to the sea is 282 miles, the portion undertaken by Victoria covers more than one-half of the whole.

547. An Act* was passed on the 25th November, 1889, to amend and consolidate the law providing for the destruction and suppression of rabbits and other vermin. It provides for the supply of wire netting to the settlers wherewith to erect rabbit-proof fences, the amount to be paid back in ten annual instalments, without interest. All the settlers have to do is to apply to the shire councils for the wire netting, the estimated cost per mile being £18 or £20. The councils will be held responsible for the repayment, and are to collect the moneys advanced and account for the same to the Government. It has been suggested that the applicants should join in groups to fence in their holdings, it being relatively cheaper to fence in a large block than a number of small ones. In introducing the measure, the Minister of Lands, the Hon. J. L. Dow, stated that whilst the annual expenditure of Victoria on rabbit destruction was about £20,000, that of New South Wales was about £90,000, and that of South Australia was over £40,000; but that the magnitude of the evil was not disclosed by these figures, which simply represented what was spent on Crown lands. In addition, there was the large expenditure incurred by private individuals in attempting to keep their land clear. The sum of £150,000 has been placed upon the estimates 1889-90 to be expended on the purchase of wire netting in accordance with the provisions of the Act.

Rabbit
Suppression
Bill.

548. During the last session of Parliament a bill for the destruction of sparrows was introduced by a private member, which proposed that bailiffs should be appointed to suppress and destroy sparrows on Crown lands, but that on private lands the duty should be performed by the municipal councils, who should appoint inspectors to enforce the provisions of the Act, which inspectors should serve notices on owners or occupiers to destroy the sparrows frequenting their land, and in the event of their failing to do so after the lapse of 14 days, should enter upon the land and destroy the sparrows at the expense of the owner or occupier, who should also be liable to a penalty of five pounds for his neglect. This Bill was subsequently withdrawn on the understanding that an opportunity would be afforded to insert one or two clauses dealing with the subject in a future Local Government Bill.

Sparrows
Destruction
Bill.

549. In 1889, as compared with 1888, notwithstanding a decrease of 8 occurred in the number of mills, the wheat operated upon increased by close upon 580,000 bushels, and the flour made by nearly

Flour mills.

* *The Vermin Destruction Act 1889* (53 Vict. No. 1,028).

7,000 tons;* but, on the other hand, the other grain operated upon fell off by 196,000 bushels, and the hands employed by 14. The pairs of stones were fewer by 77, but the sets of rollers in use increased by 187. An increase of £197,912 took place in the estimated value of machinery, lands, and buildings :—

FLOUR MILLS, 1888 AND 1889.

Year ended March.	Number of Mills.	Mills employing—		Amount of Horse-power of Machinery.	Number of Pairs of stones.	Number of sets of Rollers.
		Steam-power.	Water-power.			
1888 ...	122	116	6	3,120	378	209
1889 ...	114	107	7	3,174	301	396
Increase	...	...	1	54	...	187
Decrease	8	9	...	...	77	...

Year ended March.	Number of Hands employed.	Grain operated upon.		Flour made.	Approximate total Value of—		
		Wheat.	Other.		Machinery and Plant.	Lands.	Buildings.
		bushels.	bushels.	tons.*	£	£	£
1888 ...	817	8,324,092	429,779	177,225	272,990	83,205	170,122
1889 ...	803	8,903,320	234,149	184,056	323,404	153,325	247,500
Increase	...	579,228	...	6,831	50,414	70,120	77,378
Decrease	14	...	195,630	...	...	...	...

Value of materials used and produced.

550. In 1881 the statistics were collected by the census sub-enumerators, and consequently it was possible to obtain more complete information than is supplied in ordinary years by the collectors employed by the local bodies, especially in regard to the values of materials operated upon and articles produced, which, in the case of the flour mills, were as follow :—

FLOUR MILLS, 1880-81.

Value of materials operated upon	...	£1,412,099
Value of articles produced	...	1,651,351
Increased value	...	£239,252, or 17 per cent.

Breweries.

551. The same number of breweries were returned in 1889 as in 1888; but the hands employed in breweries increased by 43, and, whilst only a small increase took place in the hops, considerable increases took place in the sugar and malt used. The beer brewed

* A ton of flour is considered to be equivalent to 2,000 lbs.

in the year under review exceeded by nearly 2 million gallons that in the previous year, and a higher value by £453,000 was set down for the machinery, plant, lands, and buildings :—

BREWERIES, 1888 AND 1889.

Year ended March.	Number of Breweries.	Breweries employing—			Amount of Horse-power of Machinery.	Number of Hands employed.	Materials used.		
		Steam-power.	Water-power.	Manual Labour only.			Sugar.	Malt.	Hops.
1888 ...	68	50	2	16	512	1,063	lbs. 15,002,848	bushels. 746,519	lbs. 998,775
1889 ...	68	52	1	15	538	1,106	15,674,848	813,160	1,003,925
Increase ...	...	2	...	...	26	43	672,000	66,641	5,150
Decrease ...	...	...	1	1	...	...	...	...	...

Year ended March.	Beer made.	Approximate Total Value of—		
		Machinery and Plant.	Lands.*	Buildings.
	gallons.	£	£	£
1888 ...	17,828,453	149,490	393,050	282,428
1889 ...	19,798,272	172,928	755,981	349,108
Increase ...	1,969,819	23,438	362,931	66,680

552. The value of the sugar, malt, and hops used, and of the beer made, were returned for the census year, but not since. The following are the figures given :—

Value of materials used and produced.

BREWERIES, 1880-81.

Value of materials used	...	...	£442,885
“ of beer made	...	...	780,501
Increased value	...	...	£337,616, or 76 per cent.

553. The beer made in Victoria during 1888-9 amounted to 19,798,272 gallons; and the quantity imported, after deducting exports, was 1,282,057 gallons. These numbers gave a total consumption of 21,080,329 gallons or an average of 20 gallons per head. The consumption of beer per head in 1887-8 was only $18\frac{2}{3}$ gallons, in 1886-7 only $17\frac{1}{2}$ gallons, and in the two previous years no more than 16 gallons.

Consumption of beer per head.

* The figures in this column apply to purchased lands only. Two breweries in 1888 and one in 1889 were upon Crown lands; in these cases no valuation of the land has been given.

Beer brewed
in various
countries.

554. The following is a statement of the quantity of beer brewed in one year in the United Kingdom, four countries of Europe, and the United States :—

BEER BREWED IN VARIOUS COUNTRIES* (000's OMITTED).

	gallons.		gallons.
United Kingdom (1885) ...	989,890,	Austria-Hungary (1884) ...	272,624,
Holland (1884) ...	932,228,	Belgium (1885) ...	206,074,
United States (1888) ...	819,640,	France (1883) ...	189,618,

Consump-
tion of beer
in various
countries.

555. The average annual consumption of malt liquor per head in various countries may be set down as follows, the figures being generally calculated over a series of years :—

ANNUAL CONSUMPTION OF BEER PER HEAD IN VARIOUS COUNTRIES.

	gallons.		gallons.
United Kingdom ...	28·74	Tasmania ...	10·00
Germany ...	19·38	Queensland ...	9·55
Holland ...	19·05	Switzerland ...	8·15
South Australia ...	16·52	Austria-Hungary ...	6·83
Victoria ...	16·41	France ...	4·53
New South Wales ...	12·20	Canada ...	3·05
United States ...	10·74	Sweden ...	2·52

Brickyards
and
potteries.

556. The brickyards and potteries were more numerous by 3 in 1889 than in 1888, and the increase of hands employed was 733; whilst the increased value of plant, lands, and buildings was set down as £302,254. The number of bricks made was larger than in the previous year by 93 $\frac{2}{3}$ millions; and there was an increase of £21,000 in the value of pottery made. The following are the comparative figures of the two years :—

BRICKYARDS AND POTTERIES, 1888 AND 1889.

Year ended March.	Number of Brick- yards and Potteries.	Number of Machines in use.		Brickyards employing—			Amount of Horse- power of Machinery.	Number of Hands employed.
		For tempering or crushing Clay.	For making Bricks or Pottery.	Machines worked by—		Manual Labour.		
				Steam.	Horses.			
1888 ...	238	236	102	57	108	73	1,159	2,517
1889 ...	241	236	130	75	102	64	1,879	3,250
Increase	3	...	28	18	...	...	720	733
Decrease	...	...	...	...	6	9	...	...

* Computed in most cases, from figures given in the *Bijdragen van het Statistisch Instituut*, 1887, page 15, there stated in hectolitres, each of which has been assumed to be equal to 22 Imperial gallons.

BRICKYARDS AND POTTERIES, 1888 AND 1889—*continued*.

Year ended March.	Number of Bricks made.	Approximate Total Value of—				
		Bricks made.	Pottery made.	Machinery and Plant.	Lands.*	Buildings.
		£	£	£	£	£
1888 ...	184,211,300	368,420	50,850	157,365	280,161	135,635
1889 ...	277,896,807	555,790	71,927	256,471	408,702	210,242
Increase ...	93,685,507	187,370	21,077	99,106	128,541	74,607

557. The establishments for tanning and wool-washing were fewer by 5, and the tanpits by 85, in 1889 than in 1888; but the returns show an increase of 79 in the hands employed, and of £17,000 in the value of plant, lands, and buildings connected with that industry. Notwithstanding the diminished number of establishments, the work done was in excess of that in the previous year; the hides tanned were more in number by 4,500, the skins tanned by 130,653, and the skins stripped by 41,094. The wool washed, other than that stripped from skins, however, was less by 25,450 lbs. The following are the particulars for the two years:—

Tanneries,
fellmongeries, etc.

TANNERIES, FELLMONGERIES, AND WOOL-WASHING ESTABLISHMENTS, 1888 AND 1889.

Year ended March.	Number of Establishments.	Establishments employing—					Amount of Horse-power of Machinery.	Number of Hands employed.	Number of Tan Pits.
		Steam-power.	Wind-power.	Water-power.	Horse-power.	Manual Labour only.			
1888 ...	141	62	...	1	10	68	682	1,508	3,656
1889 ...	136	65	2	...	7	62	724	1,587	3,571
Increase	...	3	2	...	...	...	42	79	...
Decrease	5	...	...	1	3	6	...	...	85

Year ended March.	Number Tanned of—		Number of Skins Stripped of Wool.	Other Wool Washed.	Approximate Total Value of—		
	Hides.	Skins.			Machinery and Plant.	Lands. †	Buildings.
				lbs.	£	£	£
1888 ...	349,455	1,252,162	1,711,459	9,301,373	84,587	88,740	115,347
1889 ...	354,000	1,382,815	1,752,553	9,275,923	87,154	102,966	115,505
Increase...	4,545	130,653	41,094	...	2,567	14,226	158
Decrease	...	...	...	25,450	...	...	...

* The figures in this column apply to purchased lands only. Twenty-six of the brickyards in 1888 and twenty-three in 1889 were on Crown lands.

† The figures in this column apply to purchased land only. Five of the establishments in 1888, and six in 1889 were on Crown lands. In these cases no valuation of the land is given.

Value of
materials
used and
produced.

558. An estimate of the value of the materials used and articles produced in tanneries, fellmongeries, and wool-washing establishments was obtained at the census of 1881, but no later information exists respecting these values. The following are the figures :—

TANNERIES, FELLMONGERIES, AND WOOL-WASHING ESTABLISHMENTS,
1880-81.

Value of materials used	...	...	£1,008,531
„ articles produced	...	...	1,406,274
Increased value	...	...	<u>£397,743, or 39 per cent.</u>

Wattle
Cultivation
Bill.

559. An Act* to encourage the growth of the several species of acacia, locally known as “wattle,” the bark of which is of great value for tanning purposes, was passed on the 25th November, 1889. The Act allows selections of 1,000 acres each for wattle cultivation, to be taken up on a 21 years’ lease at a rental of not less than 2d. per acre per annum for the first seven years, not less than 4d. for the next seven years, and not less than 6d. for the third period of seven years, the right being given to select 320 acres of the area as a freehold. It is stipulated that the planting of one-fifth of the area must be made each year after the first, so that the whole may be covered by the end of the sixth year. The tree being of exceedingly quick growth, the bark is fit for stripping in 5 or 6 years. It is a peculiarity of the wattle that whilst its timber, which is valueless, becomes finer on good land, its bark producing properties are said to be greatest on poor arid soils. About 1,000,000 acres of land suitable for the growth of the wattle is to be thrown open for selection under this Act.

Woollen
mills.

560. The same number of woollen mills was returned for both 1888 and 1889, but the value of plant, lands, and buildings was set down as £25,600 more in the former than in the latter year. An increase of 32 males and 25 females took place in the number of hands employed, and an increase of 131,634 in the number of yards of tweed, cloth, and flannel made, but a small falling off in the number of blankets and shawls manufactured.

* *The Wattle Trees Cultivation Act 1889* (53 Vict. No. 1,037).

WOOLLEN MILLS, 1888 AND 1889.

Year ended March.	Number of Woollen Mil.s.	Number of Spindles.	Horse-power of Machinery.	Quantity of Wool used.	Goods Manufactured : Quantity of—		
					Tweed, Cloth, Flannel, etc.	Blankets.	Shawls.
1888 ...	8	22,900	894	lbs. 1,589,266	yards. 898,688	pairs. 3,121	number. 580
1889 ...	8	23,644	806	1,653,554	1,030,322	2,248	233
Increase ...	...	744	...	64,288	131,634	...	...
Decrease ...	...	...	88	...	...	873	347

Year ended March.	Hands employed.		Approximate Total Value of—		
	Males.	Females.	Machinery and Plant.	Lands.	Buildings.
1888 ...	399	385	£ 185,636	£ 7,367	£ 65,900
1889 ...	431	410	156,136	12,317	64,847
Increase ...	32	25	...	4,950	...
Decrease ..	...	...	29,500	...	1,053

561. The value of the raw material used in woollen mills, and of the articles produced, was returned for the census year, but not since, the difference in favour of the manufactured articles being then £79,298. The following are the figures :—

Value of articles used and produced.

WOOLLEN MILLS, 1880-81.

Value of materials used ...	£89,412
„ articles produced ...	168,710
Increased value ...	£79,298, or 89 per cent.

562. The manufacture of cotton has not yet been introduced into Australia, but statistics of its manufacture elsewhere may not be uninteresting. The following is a statement of the number of spindles in use in the United Kingdom, the Continent of Europe, the United States, and India in each of the four years ended with 1888 :—

Cotton manufacture in various countries.

SPINDLES FOR MANUFACTURING COTTON IN USE IN VARIOUS
COUNTRIES, 1885 TO 1888.

(000's omitted.)

Countries.	Number of Spindles.			
	1885.	1886.	1887.	1888.
United Kingdom ...	43,000,	42,700,	42,740,	42,740,
Continent of Europe ...	22,750,	22,900,	23,180,	23,380,
United States ...	13,250,	13,350,	13,500,	13,525,
India ...	2,145,	2,260,	2,420,	2,490,
Total ...	81,145,	81,210,	81,840,	82,135,

World's consumption of cotton.

563. The following are the quantities of cotton consumed in the same countries during the ten years ended with 1887-8. The figures express substantially the world's consumption of that staple in the years named :—

WORLD'S CONSUMPTION OF COTTON, 1879 TO 1888.

(00,000's omitted).

Years.	Quantity of Cotton Consumed in—				
	United Kingdom.	Continent of Europe.	United States.	India.	Total.
	lbs.	lbs.	lbs.	lbs.	lbs.
1878-9 ...	1,137,2	1,038,4	713,6	104,9	2,994,1
1879-80 ...	1,340,0	1,100,0	792,4	120,6	3,353,0
1880-81 ...	1,428,8	1,182,4	847,2	148,6	3,607,0
1881-2 ...	1,456,0	1,279,2	878,8	155,8	3,769,8
1882-3 ...	1,497,6	1,352,0	950,0	179,0	3,978,6
1883-4 ...	1,466,4	1,352,0	897,6	208,3	3,924,3
1884-5 ...	1,373,2	1,302,0	763,6	233,9	3,672,7
1885-6 ...	1,451,2	1,386,0	911,2	252,1	4,000,5
1886-7 ...	1,477,6	1,456,0	969,2	284,7	4,187,5
1887-8 ...	1,536,4	1,508,0	1,012,0	300,0	4,356,4

Soap and candle works.

564. The soap and candle works returned in 1889 were fewer by 2 than those in 1888, and the hands employed fell off by 28. The weight of soap made in the year under review was, however, greater by 25,952 cwt. than that in the previous year, but the weight of candles made was less by 2,334 cwt. than in 1888, whilst the valuation placed upon the machinery, lands, and buildings was lower by £27,750 than in that year:—

SOAP AND CANDLE WORKS, 1888 AND 1889.

Year ended March.	Number of Establishments.	Establishments employing—		Amount of Horse-power of Machinery.	Number of Hands employed.	Soap made.	Candles made.	Approximate Total Value of—		
		Steam-power.	Manual Labour only.					Machinery and Plant.	Lands.*	Buildings.
1888 ...	34	25	9	470	407	cwt. 125,198	cwt. 54,419	£ 81,376	£ 84,109	£ 49,621
1889 ...	32	22	10	436	379	151,150	52,085	83,280	65,545	38,530
Increase ...	...	...	1	...	...	25,952	...	1,904	...	...
Decrease ...	2	3	...	34	28	...	2,334	...	18,564	11,091

NOTE.—In addition to the other manufactures, 9,600 cwt. of soda crystals were made in 1888, and 6,240 cwt. in 1889.

565. The value of the raw material used, and of the articles produced, in soap and candle factories was returned for the twelve months preceding the census, with the following result. No later information exists on these points:—

SOAP AND CANDLE WORKS, 1880-81.

Value of raw materials used ...	...	£288,340
„ articles produced ...	...	450,924

Increased value ... £162,584, or 56 per cent.

566. The same number of tobacco manufactories was returned in 1889 as in 1888, but the hands employed fell off by 73, viz., 30 males and 43 females. The tobacco manufactured fell off by 43,616 lbs.; and the snuff manufactured by 1,289 lbs.; on the other hand, there was an increase of 486,600 in the number of cigars made, and of 1,657,000 in the number of cigarettes made. The value of lands, buildings, and plant in use was set down as greater by £17,420 in 1889 than in 1888:—

TOBACCO MANUFACTORIES, 1888 AND 1889.

Year ended March.	Number of Establishments.	Establishments employing—			Amount of Horse-power of Machinery.	Number of Hands employed.		Quantity of—		Number of Cigars Manufactured.	Approximate Total Value of—		
		Steam-power.	Gas-power.	Manual Labour.		Males.	Females.	Tobacco Manufactured.	Snuff Manufactured.		Machinery and Plant.	Lands.	Buildings.
1888 ..	13	3	1	9	47	548	221	lbs. 1,347,478	lbs. 4,171	8,643,000	£ 36,860	£ 42,300	£ 30,215
1889 ..	13	4	1	8	53	518	178	1,303,862	2,882	9,129,600	34,725	46,000	46,070
Increase ..	...	1	..	..	6	..	..	..	..	486,600	..	3,700	15,855
Decrease ..	...	...	...	1	..	30	43	43,616	1,289	..	2,135	..	..

NOTE.—In addition to the other manufactures, 2,118,000 cigarettes were made in 1888, and 3,775,000 in 1889.

* The figures in this column apply to purchased land only. One of these establishments in 1888 and two in 1889 were on Crown lands. In these cases no valuation of the land is given.

Value of
raw and
manufac-
tured
materials.

567. According to the census returns, the value of the articles produced in tobacco manufactories in 1880-81 showed an excess over that of the raw materials used of £72,870, which is equivalent to an increase of value by the process of manufacture amounting to 58 per cent. The following are the figures :—

TOBACCO MANUFACTORIES, 1880-81.

Value of materials used	...	...	£126,450
„ articles produced	...	...	199,320
Increased value	...	...	£72,870, or 58 per cent.

Distilleries.

568. Eight distilleries were returned in 1889, as against nine in 1888; but an increase took place of 2 in the number of hands employed, of 183,000 gallons in the quantity of spirits made, and of £91,000 in the value of plant, lands, and buildings. The following are the figures for the two years :—

DISTILLERIES, 1888 AND 1889.

Year ended March.	Number of Distilleries.	Amount of Horse-power of Machinery.	Number of Hands employed.	Spirits made.	Approximate Value of—		
					Machinery and Plant.	Land.	Buildings and Improve-ments.
1888 ...	9	158	103	gallons. 268,475	£ 50,050	£ 83,910	£ 42,075
1889 ...	8	199	105	451,459	133,000	80,000	54,000
Increase ...	...	41	2	182,984	82,950	...	11,925
Decrease...	1	...	...	...	...	3,910	...

Consump-
tion of
spirits in
various
countries.

569. According to the following figures, the consumption of spirits per head is greatest in Holland, next in Queensland, Western Australia, New South Wales, the United States, Sweden, and Canada in the order named. In all of these countries the consumption per head appears to be greater, whilst in Switzerland, Germany, New Zealand, France, South Australia, Tasmania, Austria-Hungary, and the United Kingdom it appears to be less, than in the colony of Victoria :—

ANNUAL CONSUMPTION OF SPIRITS PER HEAD IN VARIOUS COUNTRIES.

Gallons.			Gallons.		
Holland	...	2.08	Switzerland	...	1.04
Queensland	...	1.85	Germany	...	.95
Western Australia	...	1.46	New Zealand	...	.92
New South Wales	...	1.39*	France	...	.85
United States	...	1.34	South Australia	...	.70
Sweden	...	1.27	Tasmania	...	.69
Canada	...	1.19	Austria-Hungary	...	.63
Victoria	...	1.12	United Kingdom	...	.59

* Mean of 12 years ended with 1888. According to the official returns of New South Wales the proportion of spirits consumed had become reduced in 1888 to 1.10 gallon per head.

570. The manufactories and works, exclusive of those of which mention has already been made—viz., flour mills, breweries, distilleries, brickyards, potteries, tanneries, fellmongeries, wool-washing establishments, woollen mills, soap and candle works, and tobacco manufactories—were more numerous by 134 than those returned in 1888. It will be observed that the establishments employing wind power decreased by 1 and those employing horse power decreased by 15, whilst there was an increase of 111 in those worked with the aid of other machinery, and of 39 in those worked by manual labour only. The males employed increased by 4,499, and the females employed by 106; whilst the value of lands, buildings, and plant shows an increase of £1,133,126. The totals of the two years are subjoined :—

MANUFACTORIES, WORKS, ETC., 1888 AND 1889.

Exclusive of Flour Mills, Breweries, Distilleries, Brickyards, Potteries, Tanneries, Fellmongeries, Wool-washing Establishments, Woollen Mills, Soap and Candle Works, and Tobacco Manufactories.)

Year ended March.	Number of Manufactories, Works, etc.	Manufactories, etc., employing—						Horse-power of Machinery.
		Steam.	Water.	Gas.	Wind	Horse-power.	Manual Labour only	
1888 ...	2,221	948	16	243	2	36	976	14,665
1889 ...	2,355	1,035	21	262	1	21	1,015	17,129
Increase ...	134	87	5	19	...	...	39	2,464
Decrease ...	...	...	...	...	1	15	...	...

Year ended March.	Number of Hands employed.		Approximate Total Value of—		
	Males.	Females.	Machinery and Plant.	Lands.*	Buildings.
1888... ..	34,657	6,459	£ 4,087,821	£ 3,076,901	£ 2,496,727
1889... ..	39,156	6,565	4,247,534	3,803,940	2,743,101
Increase ...	4,499	106	159,713	727,039	246,374

NOTE.—Exclusive of stone-breaking and tar-pavement works, which numbered 17 in 1888 and 19 in 1889. These works being carried on in connexion with quarries, it is found impossible to separate them therefrom.

571. By summarizing the returns of manufactories and works of all descriptions, including not only such as are embraced in the foregoing table, but also those excluded therefrom—viz., flour mills,

* In the case of establishments standing upon Crown lands no estimate of the value of the land is given. The number of such establishments was 167 in 1888 and 203 in 1889.

breweries, distilleries, brickyards, potteries, tanneries, fellmongeries, wool-washing establishments, woollen mills, soap and candle works, and tobacco manufactories—it is found that during 1888-9 the total number of establishments increased by 121, those of them which use steam or gas by 117; at the same time the hands employed increased by 5,404, the amount of horse-power by 3,231, and the value of machinery, lands, and buildings by £2,158,323. The returns of the two years are contained in the following table:—

MANUFACTORIES, WORKS, ETC., 1888 AND 1889.

(Including Flour Mills, Breweries, Distilleries, Brickyards, Potteries, Tanneries, Fellmongeries, Wool-washing Establishments, Woollen Mills, Soap and Candle Works, and Tobacco Manufactories, as well as all other Manufactories, Works, etc.)

Year ended March.	Total Number of Establishments.	Number of Establishments using Steam or Gas Engines.	Horse-power of Machinery.	Number of Hands employed.	Approximate Value of Lands,* Buildings, Machinery, and Plant.
					£
1888 ...	2,854	1,522	21,707	49,084	12,633,988
1889 ...	2,975	1,639	24,938	54,488	14,792,311
Increase ...	121	117	3,231	5,404	2,158,323

NOTE.—Exclusive of stone-breaking and tar-pavement works, which numbered 17 in 1888, and 19 in 1889. These works being carried on in connexion with quarries, it is found impossible to separate them therefrom.

Names of
manufac-
tories.

572. The manufacturing establishments of all kinds respecting which returns are obtained are named in the following table, and their numbers are given for 1880-81 and 1888-9. For the former, which was the census year, are also given the approximate values of the materials used and articles produced, and for the latter the number of hands employed and the approximate value of lands, buildings, machinery, and plant. The establishments are generally of an extensive character, the exceptions being in cases where the existence of industries of an unusual or interesting nature might seem to call for notice, or where machinery worked by steam, gas, or water is used. No attempt is made to enumerate mere shops, although some manufacturing industry may be carried on thereat. Were this done, the “manufactories” in the colony might be multiplied to an almost indefinite extent.

* In the case of establishments standing upon Crown lands no estimate of the value of the land is given. The number of such establishments was 201 in 1888, and 235 in 1889.

MANUFACTORIES, WORKS, ETC., 1881 AND 1889.

Description of Manufactory, Work, etc.	1880-81.			1888-9.		
	Number of Establishments.	Approximate Value of—		Number of Establishments.	Hands employed.	Approximate value of Machinery, Plant, Lands, and Buildings.
		Materials used.	Articles produced.			
BOOKS AND STATIONERY.		£	£			£
Account-book manufactories, manufacturing stationers	7	62,386	100,057	10	984	180,350
Printing establishments* ...	89	202,475	569,797	160	4,084	1,130,944
MUSICAL INSTRUMENTS.						
Organ-building establishments ...	2	3,500	8,050	4	34	8,600
Pianoforte manufactories ...	5	1,700	4,150	4	16	4,390
CARVING FIGURES, ETC.						
Statuary works ...	...	...	...	1	...	...
Wood carving and turnery works ...	10	4,965	10,800	15	72	18,542
DESIGNS, MEDALS, AND DIES.						
Die-sinkers, engravers, medalists, trademark makers	6	3,350	9,200	5	65	18,340
Indiarubber stamp manufactories † ...	2	350	1,700	...	...	...
Type foundry ...	1	...	...	...	...	...
PHILOSOPHICAL INSTRUMENTS, ETC.						
Electric-lighting apparatus manufactory	...	...	...	2	7	4,350
Philosophical instrument manufactories	1	...	...	1	...	...
SURGICAL INSTRUMENTS.						
Surgical instrument, truss—manufactories	6	2,400	5,600	4	22	11,750
ARMS, AMMUNITION, ETC.						
Blasting powder, dynamite, etc.—manufactories	3	9,964	16,737	6	80	44,445
Fuze manufactory ...	1	...	...	1	...	...
Shot manufactories ...	...	...	...	2	4	5,050
MACHINES, TOOLS, AND IMPLEMENTS.						
Agricultural implement manufactories	54	91,659	202,535	63	955	154,450
Boiler and pipe-covering manufactories	...	...	...	1	...	...
Cutlery, tool—manufactories ...	3	800	2,400	7	41	22,785
Domestic implement‡ manufactories ...	2	...	...	9	68	12,730
Evaporating apparatus manufactory...	...	...	...	1	...	...
Iron foundries and engineering establishments §	147	329,395	723,919	162	6,865	1,154,723
Nail manufactories ...	...	...	...	2	15	5,100

* Including paper-bag manufactories.

† Indiarubber stamps are now generally made by manufacturing stationers. See Books and Stationery above.

‡ Including bellows, churn, washing-machine, etc., makers.

§ Including brass-founders and pattern makers.

MANUFACTORIES, WORKS, ETC., 1881 AND 1889—continued.

Description of Manufactory, Work, etc.	1880-81.			1888-9.		
	Number of Establishments.	Approximate Value of—		Number of Establishments.	Hands employed.	Approximate Value of Machinery, Plant, Lands, and Buildings.
		Materials used.	Articles produced.			
MACHINES, TOOLS, AND IMPLEMENTS— <i>continued.</i>		£	£			£
Pattern-makers ... ..	...	...	...	4	18	7,535
Refrigerating machine manufactory ...	...	...	...	1	...	...
Sheet-iron and tin works	61	143,000	247,299	50	783	177,055
CARRIAGES AND HARNESS.						
Carriage lamp manufactories	3	900	2,950	2	14	6,700
Coach, waggon, etc.—manufactories ...	132	99,415	212,615	200	2,950	411,703
Perambulator manufactories	3	1,750	5,000	2	8	2,760
Saddle, harness—manufactories	47	35,792	81,130	67	590	111,046
Saddle-tree, etc., manufactories	4	2,400	6,860	5	35	5,950
Whip manufactories	3	940	2,950	3	17	2,630
SHIPS AND BOATS.						
Ship, boat—builders	10	3,570	14,614	8	86	10,260
Ships' wheels, blocks, etc.—manufactories	3	505	1,100	1	...	...
Floating-dock	1	...	...	8	176	431,225
Graving-docks	3	...	...	
Patent slips	2	...	...	
HOUSES, BUILDINGS, ETC.						
Architectural modelling works	11	3,584	8,900	14	75	28,050
Enamelled mantelpiece manufactories.	...	...	...	4	64	9,915
Patent ceiling ventilator manufactories	2	250	1,600	...	...	...
Lime works	21	6,560	17,216	39	438	22,801
Roof-covering composition manufactories	2	944	2,180	...	...	...
Venetian blind manufactories	12	5,500	11,750	9	116	20,965
FURNITURE.						
Bedding, flock, and upholstery manufactories	15	13,350	26,880	30	350	95,469
Bedstead manufactory ... ..	...	...	...	1	...	...
Cabinet works, including billiard-table makers	63	131,000	258,188	72	1,375	243,104
Gasalier manufactory ... ..	...	...	...	2	22	5,923
Earth-closet manufactories	1	...	...	3	39	8,850
Iron-safe manufactories	2	670	970	2	29	4,300
Looking-glass manufactories	2	400	1,300	3	132	5,200
Picture-frame makers, etc.	13	5,627	11,550	7	49	26,499
CHEMICALS.						
Chemical works	6	25,160	43,600	12	234	139,375
Dye works	6	1,130	7,150	8	68	16,920
Essential oil manufactories	4	1,825	3,900	10	69	7,625
Ink, blacking, blue, washing-powder, etc.—manufactories	12	37,280	58,560	8	181	40,260

MANUFACTORIES, WORKS, ETC., 1881 AND 1889—*continued.*

Description of Manufactory, Work, etc.	1880-81.			1888-9.		
	Number of Establish-ments.	Approximate Value of—		Number of Establish-ments.	Hands employed.	Approximate Value of Machinery, Plant, Lands, and Buildings.
		Materials used.	Articles produced.			
CHEMICALS—<i>continued.</i>		£	£			£
Janner ... ..	...	...	...	2	8	3,120
Paint, varnish—manufactories ...	1	...	...	2	13	44,300
Printing ink manufactories...	...	...	...	2	23	5,600
Salt works	8	4,882	10,810	6	95	18,585
TEXTILE FABRICS.						
Woollen mills	10	89,412	168,710	8	841	233,300
DRESS.						
Boot manufactories	105	355,418	686,922	96	3,860	216,339
Clothing factories	63	370,181	761,401	73	4,078	384,916
Fur manufactories	3	4,300	6,900	7	51	11,026
Hat, cap—manufactories	22	34,753	66,264	17	530	68,602
Hosiery manufactories ... ..	...	...	...	3	70	4,880
Oilskin, waterproof-clothing—manu- factories	5	900	5,700	5	70	22,830
Umbrella and parasol manufactories ...	9	13,180	24,825	8	124	22,135
Wig manufactory	1	...	...	...	...	...
FIBROUS MATERIALS.						
Rope, twine, mat, bag, sack—manu- factories	18	66,975	102,280	12	397	100,845
Sail, tent, tarpaulin—manufactories ...	12	28,860	47,250	9	58	41,780
ANIMAL FOOD.						
Butter factory ... ..	...	...	...	1	...	...
Cheese factories	28	17,733	31,586	24	82	25,391
Meat-curing establishments	16	192,150	258,790	23	355	95,828
VEGETABLE FOOD.						
Maizena, oatmeal, starch—manu- factories	5	5,620	8,000	4	198	118,700
Biscuit manufactories	13	106,110	181,840	10	657	67,510
Confectionery works	8	61,600	88,800	13	372	98,160
Fruit evaporating works ... ..	...	...	...	1	...	...
Flour mills	144	1,397,099	1,637,351	114	803	724,229
Jam, pickle, vinegar, sauce—manu- factories	25	84,430	132,170	21	390	74,228
Macaroni works	2	125	230	1	...	...
DRINKS AND STIMULANTS*						
Aërated waters, gingerbeer, liqueur, etc.—works	114	91,849	196,810	154	1,106	309,762
Breweries	81	442,885	780,501	68	1,106	1,278,017
Coffee, chicory, cocoa, mustard, spice— works	12	235,355	322,786	12	152	136,745

* Places where wine is made are not included. The number of wine-presses returned in 1888-9 was 515.

MANUFACTORIES, WORKS, ETC., 1881 AND 1889—*continued.*

Description of Manufactory, Work, etc.	1880-1.			1888-9.		
	Number of Establishments.	Approximate Value of—		Number of Establishments.	Hands employed.	Approximate Value of Machinery, Plant, Lands, and Buildings.
		Materials used.	Articles produced.			
DRINKS AND STIMULANTS*— <i>continued.</i>		£	£			£
Distilleries	6	26,368	44,500	8	105	267,000
Malthouses	14	67,635	98,000	16	114	140,935
Sugar, treacle—refineries	1	...	...	3	227	116,000
Tobacco, cigars, snuff—manufactories	16	126,450	199,320	13	696	126,795
ANIMAL MATTERS.						
Boiling-down, tallow-rendering—establishments	15	28,303	77,000	16	82	55,965
Bone mills and bone manure manufactories	15	50,225	70,845	12	92	46,805
Brush manufactories	8	15,700	27,800	10	178	18,610
Comb manufactory	1	...	...	...	...	...
Catgut manufactories	2	800	2,000	1	...	...
Curled hair manufactories	3	1,700	2,565	4	30	4,700
Glue, oil—manufactories	7	8,200	12,700	4	28	11,120
Leather belting (machinery) manufactory	...	...	...	1	...	...
Morocco, fancy leather—manufactories	3	2,480	4,400	5	26	2,540
Portmanteau, trunk—manufactories ...	7	5,680	9,520	8	40	16,565
Soap, candle—works	38	288,340	450,924	32	379	187,355
Tanneries, fellmongeries, and wool-washing establishments	151	1,008,531	1,406,274	136	1,587	305,625
VEGETABLE MATTERS.						
Bark mills	8	17,000	25,650	3	20	4,150
Basket-making works	9	1,670	4,560	11	94	13,580
Broom manufactories†	2	6,200	13,000	1	...	...
Chaff-cutting, corn-crushing—works‡	165	357,232	516,623	208	980	276,773
Cooperage works	24	17,829	35,243	28	180	40,580
Cork manufactories	2	2,100	3,100	1	...	...
Fancy-box, hat-box—manufactories ...	5	3,080	6,745	7	120	31,525
Paper manufactories	3	24,300	47,370	2	175	100,000
Sawmills, moulding, joinery, etc.—works	174	552,463	973,127	314	6,555	1,017,646
COAL AND LIGHTING.						
Gasworks	19	97,392	226,116	24	709	1,661,290
Electric-light works ... ..	...	...	...	2	58	40,500
Ironfounders' charcoal factory ... ..	...	...	...	1	...	...
STONE, CLAY, EARTHENWARE, AND GLASS.						
Artificial stone manufactory ... ..	...	...	...	1	...	...
Asphalte paving material works ... ..	...	...	...	1	...	...

* Places where wine is made are not included. The number of wine presses returned in 1888-9 was 515.

† See also Brush factories under Animal Matters *ante*.

‡ All these establishments used machinery worked by steam, wind, or horse power. They must not be confounded with chaff-cutting and corn-crushing machines in use on farms, which numbered about 17,887.

MANUFACTORIES, WORKS, ETC., 1881 AND 1889—*continued.*

Description of Manufactory, Work, etc.	1880-81.			1888-9.		
	Number of Establishments.	Approximate Value of—		Number of Establishments.	Hands employed.	Approximate Value of Machinery, Plant, Lands, and Buildings.
		Materials used.	Articles produced.			
STONE, CLAY, EARTHENWARE, AND GLASS— <i>continued.</i>		£	£			£
Asbestos works ... ..	...	...	...	1	...	...
Brickyards and potteries	165	...	137,834	241	3,250	875,415
Cement tile works ... ..	...	...	...	1	...	...
Filter manufactories	1	...	...	2	7	1,520
Glass manufactories, works	9	12,705	41,150	8	233	38,200
Stone-breaking, asphalte, tar-pavement—works*	9	10,640	27,783	...	...	...
Stone and marble sawing, polishing—works	43	50,583	104,614	47	714	96,610
WATER.†						
Ice manufactories	2	2,000	7,000	6	50	55,750
GOLD, SILVER, AND PRECIOUS STONES.						
Goldsmiths, jewellers, and electro-platers (manufacturing)	28	62,020	109,650	23	334	125,110
Royal mint	1	...	...	1	...	...
METALS OTHER THAN GOLD AND SILVER.						
Bell foundry	1	...	...	...	...	...
Brass and copper foundries ... ..	...	...	...	20	340	143,760
Lead, pewter, and zinc—works	5	17,850	23,800	4	39	47,800
Pyrites works	1	...	...	1	...	...
Smelting works	7	32,396	48,610	4	75	28,000
Wire-working establishments	10	3,650	9,800	12	101	29,670
Total where only one return was received‡	...	257,910	400,080	...	251	138,920
Total	2,468	7,997,745	13,370,836	2,975	54,488	14,792,311

573. The difference between the value of materials used and articles produced in 1880-81, as shown by the table, indicates an increase in the value of the former by the process of manufacture of over $5\frac{1}{3}$ millions sterling, or 67 per cent. The following are the exact figures:—

* Now included under the head of Stone Quarries—*post.*

† Works for the storage and supply of water are not included in the manufacturing tables. For tables relating to these, see paragraph 492 *et seq.*

‡ The particulars of these have been combined in accordance with a promise made that the contents of individual schedules would not be published.

VALUE OF RAW AND MANUFACTURED MATERIALS, 1880-81.

		£
Value of materials operated upon	...	7,997,745
„ articles produced	...	13,370,836
Increased value	...	5,373,091, or 67 per cent.

Summary of
manufac-
tories at
three
periods.

574. By comparing the particulars respecting these manufactories, as returned in 1889 and in the first year of each of the two previous quinquennia, considerable increases at each successive period will be found in all the columns. The number of establishments increased by 19 per cent. between 1879 and 1884, and by 7 per cent. between 1884 and 1889; the hands employed increased by 40 per cent. and 16 per cent. in those intervals respectively; and the value of machinery, plant, lands, and buildings increased by 38 per cent. in the first, and by 57 per cent. in the second, interval. The following is the comparison referred to :—

SUMMARY OF MANUFACTORIES, WORKS, ETC.,
1879, 1884, AND 1889.

Year ended March.	Total Number of Establish- ments.	Number of Establishments using Steam or Gas Engines.	Horse-power of Engines.	Number of Hands employed.	Approximate Value of Lands, Buildings, Machinery, and Plant
					£
1879 ...	2,343	908	13,064	33,278	6,798,636
1884 ...	2,777	1,272	17,602	46,857	9,414,527
1889 ...	2,975	1,639	24,938	54,488	14,792,311

Stone
quarries

575. The stone quarries, stone-crushing, and tar-pavement works returned in 1889 were more numerous by 13 than in 1888, and the output of stone increased by 36,486 cubic yards, and the hands employed by 285. The following are the figures for the two years :—

STONE QUARRIES,* ETC., 1888 AND 1889.

Year ended March.	Number of Quarries, etc.	Cubic Yards of Stone raised.					Steam Engines in use.	
		Bluestone.	Slate and Flagging.	Sandstone and Freestone.	Granite.	Other.	Number.	Horse- power.
1888	166	689,207	3,943	9,398	1,000	13,800	24	461
1889	179	726,174	2,060	17,900	1,700	6,000	27	548
Increase	13	36,967	...	8,502	700	...	3	87
Decrease	...	...	1,883	...	...	7,800	...	...

* Including stone-crushing and tar-pavement works formerly included in the table of "Manu-
factories, works, etc."

STONE QUARRIES,* ETC., 1888 AND 1889—*continued*.

Year ended March.	Number of Hands employed.	Approximate Total Value of—			
		Stone raised.	Machinery and Plant.	Lands.†	Buildings.
1888	1,498	£ 174,839	£ 55,771	£ 51,330	£ 11,179
1889	1,783	196,020	70,693	74,835	8,310
Increase	285	21,181	14,922	23,505	...
Decrease	...	...	...	...	2,869

576. According to the official returns of New South Wales, there were in 1889, 16 more manufactories and works (including stone quarries) in that colony than in Victoria, but the hands employed in the manufactories of the latter exceeded by 9,557 those similarly employed in the former. The number of works and hands employed therein in the two colonies are placed side by side in the following table :—

Manu-
facto-
ries, Works,
etc., in Vic-
toria and
New South
Wales.

MANUFACTORIES, WORKS, ETC., IN VICTORIA AND NEW SOUTH WALES, 1889.

Description of Manufactory, Work, etc.	Number of Establishments.		Hands Employed.	
	Victoria.	New South Wales.	Victoria.	New South Wales.
BOOKS AND STATIONERY.				
Manufacturing stationers, including rubber-stamp makers	10	29	984	585
Printing establishments, including paper-bag and box makers	167	167	4,204	3,653
MUSICAL INSTRUMENTS, ETC.				
Organ builders	4	...	34	...
Pianoforte makers	4	...	16	...
Musical instrument and toy makers	...	2	...	6
CARVING, ENGRAVING, ETC.				
Statuary, wood-carving works	16	...	76	...
Die-sinkers, engravers, medallists...	5	6	65	18
PHILOSOPHICAL INSTRUMENTS, ETC.				
Philosophical and surgical instrument makers	7	13	33	70
ARMS, AMMUNITION, ETC.				
Blasting-powder, dynamite, and fuze makers	7	...	100	...
Shot manufacturers	2	...	4	...

* Including stone-crushing and tar-pavement works formerly included in the table of "Manu-
factories, works, etc."

† The figures in this column apply to purchased land only. Fifty-three of the stone quarries in 1889, and thirty-eight in 1888, were on Crown lands, and in these cases no valuation of the land has been given.

MANUFACTORIES, WORKS, ETC., IN VICTORIA AND NEW SOUTH
WALES, 1889—continued.

Description of Manufactory, Work, etc.	Number of Establishments.		Hands employed.	
	Victoria.	New South Wales.	Victoria.	New South Wales.
MACHINES, TOOLS AND IMPLEMENTS.				
Agricultural implement makers	63	32	955	181
Engine and machine makers, iron and brass founders	194	201	7,300	5,882
Sheet, galvanised iron, tin, lead, zinc, pewter, type works	54	96	822	845
Nail manufacturers	2	...	15	...
Cutlery, tool makers	7	...	41	...
Pattern makers	4	...	18	...
CARRIAGES AND HARNESS.				
Coach, waggon, perambulator builders ...	204	210	2,972	1,991
Saddle, saddle-tree, whip makers ...	75	73	642	567
SHIPS AND BOATS.				
Ship, boat builders, block makers ...	9	46	37	683
Graving docks, patent slips, etc. ...	8	9	176	309
HOUSES AND BUILDINGS.				
Architectural modellers, etc.	14	11	75	84
Lime and cement works	39	26	438	190
Venetian blind makers	9	8	116	71
Enamelled mantelpiece makers	4	...	64	...
FURNITURE.				
Bedding, curled hair, flock manufacturers, hair-workers	34	20	380	187
Furniture, cabinet works	73	102	1,379	1,175
Picture frame makers	7	18	49	52
Gasalier factories	2	...	22	...
Earth-closet makers	3	...	39	...
Iron safe makers	2	..	29	...
Looking glass makers	3	...	132	...
CHEMICALS.				
Chemical works	12	11*	234	118
Dye works	8	8	68	42
Ink, printing ink makers	10	4	204	9
Essential oil factories	10	...	69	...
Japanning works	2	1	8	3
Paint, varnish makers	2	4	13	20
Salt works	6	...	95	...
DRESS.				
Boot factories	96	57	3,860	2,045
Clothing factories	73	74	4,078	3,312
Furriers	7	2	51	7
Hat, cap factories	17	13	530	141

* Including 1 poudrette and ammonia factory.

MANUFACTORIES, WORKS, ETC., IN VICTORIA AND NEW SOUTH
WALES, 1889—*continued.*

Description of Manufactory, Work, etc.	Number of Establishments.		Hands employed.	
	Victoria.	New South Wales.	Victoria.	New South Wales.
DRESS—<i>continued.</i>				
Oil-skin, waterproof clothing makers ...	5	2	70	39
Umbrella, parasol makers ...	8	1	124	8
Hosiery manufacturers ...	3	...	70	...
TEXTILE FABRICS.				
Woollen mills ...	8	5	841	177
FIBROUS MATERIALS.				
Rope, twine, mat, bag, sack makers ...	12	8	397	124
Sail, tent, tarpaulin makers ...	9	16	58	69
ANIMAL FOOD.				
Meat curing, preserving works ...	23	12	355	317
Butter and cheese factories ...	25	179	88	1,124
VEGETABLE FOOD.				
Maizena, oatmeal, starch, macaroni makers, rice dressers, etc.	5	10	201	109
Biscuit manufactories ...	10	8	657	435
Confectionery works ...	13	20	372	389
Flour mills ...	114	110	803	628
Fruit preserving, jam, pickle, sauce, vinegar, works	22	15	398	370
DRINKS AND STIMULANTS.				
Aërated waters, liqueur, perfumery works ...	154	151	1,106	1,111
Breweries ...	68	71*	1,106	805
Distilleries ...	8	1	105	15
Coffee, chocolate, mustard, spice works ...	12	6	152	61
Sugar refineries ...	3	1	227	210
Sugar (raw) works ...	...	36	...	1,640
Tobacco, cigars, snuff manufacturers ...	13	9	696	715
Malthouses ...	16	1	114	12
ANIMAL MATTERS.				
Boiling down, tallow melting, glue making works	20	21	110	135
Bone mills, bone manure works ...	12	9	92	36
Brush, broom factories† ...	11	10	208	81
Portmanteau, trunk makers ...	8	3	40	16
Leather belting, morocco, fancy leather, catgut factories	7	4	51	25
Soap, candle works ...	32	59	379	397
Tanneries, fellmongeries, woolwashing works	136	163	1,587	2,167

* Including bottling works.

† Including millet as well as hair brooms and brushes.

MANUFACTORIES, WORKS, ETC., IN VICTORIA AND NEW SOUTH
WALES, 1889—continued.

Description of Manufactory, Work, etc.	Number of Establishments.		Hands employed.	
	Victoria.	New South Wales.	Victoria.	New South Wales.
VEGETABLE MATTERS.				
Bark mills	3	4	20	19
Basket makers	11	7	94	50
Chaff cutting, corn crushing works ...	208	97	980	451
Cooperage works	28	12	180	119
Paper manufactories	2	1	175	99
Saw mills, moulding, joinery, cork cutting works	315	399	6,558	4,812
COAL AND LIGHTING.				
Electric light works	2	11	58	34
Gas, coke works	25	35	715	1,021
Kerosene, oil works ... ..	...	3	...	244
STONE, CLAY, AND GLASS.				
Stone quarries,*stone crushing,dressing works, asphalt, pavement works	180	77	1,799	1,238
Brickyards, potteries	241	250	3,250	2,460
Glass works	8	3	233	99
Stone, marble—sawing, polishing, monumen- tal works	47	26	714	156
Artificial stone, asbestos, cement tile, filter works	5	...	44	...
WATER.				
Ice manufactories	6	10	50	211
GOLD, SILVER, AND PRECIOUS STONES.				
Goldsmiths, jewellers, gold beaters, electro- platers, mother-of-pearl workers	23	33	334	184
Mint	1	1	51	24
METALS OTHER THAN GOLD AND SILVER				
Smelting, pyrites works	5	20	81	2,009
Wire working establishments	12	7	101	83
Total	3,154	3,170	56,271	46,714

Accidents in
factories,
1888.

577. Under the *Factories and Shops Act* 1885 (49 Vict. No. 862) it is prescribed under a penalty not exceeding £5 for non-compliance, that notices shall be sent to the Inspector of Factories, and to the certifying medical practitioner for the district, of any accident causing

* In making comparisons it has been found impossible to separate stone quarries from the other works carried on in connexion therewith. They are, therefore, necessarily included in this table.

loss of life to a person employed in a factory or workroom, also of any accident whereby a person so employed receives bodily injury, provided it is produced either by machinery moved by steam, water, or other mechanical power, or through a vat, pan, or other structure filled with hot liquid or molten metal or other substance, or by escape of gas, steam, or metal, and is of such a nature as to prevent the person injured by it from returning to his work in the factory or workroom within forty-eight hours of the occurrence of the accident. The following cases of injury were reported in 1888 :—

ACCIDENTS IN FACTORIES OR WORKROOMS, 1888.

Nature or Effect of Injury.	Males.			Females.		
	Under 20 Years.	Over 20 Years.	Total.	Under 20 Years.	Over 20 Years.	Total.
Death	2	3	5	...	...	...
Amputation of arm ... ..	...	2	2	...	...	...
Amputation of hand or part of hand ...	13	13	26	...	...	...
Fracture of limbs or bones of trunk ...	6	5	11	...	...	...
Fracture of hand	4	6	10	1	...	1
Injuries to head or face ... ..	...	5	5	...	...	...
Lacerations, contusions, etc. ...	10	28	38	2	1	3
Total	35	62	97	3	1	4

578. Gold was first discovered in Australia by the Rev. W. B. Clarke, of Sydney, who, in 1841, found the precious metal in the mountainous regions to the west of the vale of Clwyd, in New South Wales, and in 1844 exhibited a specimen of gold in quartz to the then Governor, Sir George Gipps, and others. But the subject was not followed up, “as much from considerations of the penal character of the colony as from general ignorance of the value of such an indication.” In 1850, however, Mr. E. H. Hargreaves returned to Sydney from California for the express purpose, as he states, of searching for gold; and on the 12th February, 1851, he succeeded in finding gold at Summer Hill Creek, in New South Wales. This discovery afterwards led to gold being found at other places in that colony, and to the discovery of the gold-fields of Victoria. The following is a short statement of the order in which a Select Committee, appointed in 1853* by the Legislative Council to consider claims for rewards for gold discoveries in Victoria, placed the various

Discovery of
gold.

* The report of this Committee was dated 10th March, 1854.

claimants :—The Hon. W. Campbell discovered gold in March, 1850, at Clunes ; concealed the fact at the time from the apprehension that its announcement might prove injurious to the squatter on whose run the discovery was made, but mentioned it in a letter to a friend on the 10th June, and afterwards on the 5th July, 1851, which friend, at Mr. Campbell's request, reported the matter to the gold-discovery committee on the 8th July. Mr. L. J. Michel and six others discovered gold in the Yarra Ranges, at Anderson's Creek, which they communicated to the gold-discovery committee on the 5th July. Mr. James Esmond, a Californian digger, and three others, obtained gold in the quartz rocks of the Pyrenees, and made the discovery public on the 5th July. Dr. George Bruhn, a German physician, found indications of gold in quartz "two miles from Parker's station" in April, 1851, and forwarded specimens to the gold committee on the 30th June. Mr. Thomas Hiscock found gold at Buninyong on the 8th August, and communicated the fact to the editor of the *Geelong Advertiser* on the 10th of the same month. This discovery led to that of the Ballarat gold-fields. Mr. C. T. Peters, a hutkeeper at Barker's Creek, and three others, found gold at Specimen Gully on the 20th July, worked secretly to the 1st September, then published the account. This led to the discovery of the numerous gold-fields about Mount Alexander.

Gold raised,
1887 and
1888.

579. According to the estimate of the Mining Department, the gold raised in Victoria in 1888 was 625,026 oz., which is more than the quantity obtained in 1887 by 7,275 oz., representing, at £4 per oz., an increased value of £29,100. The following are the figures for the two years :—

QUANTITY AND VALUE OF GOLD RAISED IN 1887 AND 1888.

Year.	Gold raised in Victoria.	
	Estimated Quantity.	Value, at £4 per oz.
	oz.	£
1887 	617,751	2,471,004
1888 	625,026	2,500,104
Increase 	7,275	29,100

Gold raised,
1871 to
1888.

580. From 1871 to 1879 the quantity of gold raised from year to year had been steadily diminishing, but in the next three years an improvement took place, which, however, has not since been sustained, the yield having again gradually fallen off since 1882, and being less

in the last two years than it had been previously since 1851. The subjoined figures give an estimate of the quantity of gold raised in 1871 and each subsequent year:—

ESTIMATED QUANTITY OF GOLD RAISED, 1871 TO 1888.

	oz.		oz.
1871	1,355,477	1880	829,121
1872	1,282,521	1881	858,850
1873	1,241,205	1882	898,536
1874	1,155,972	1883	810,047
1875	1,095,787	1884	778,618
1876	963,760	1885	735,218
1877	809,653	1886	665,196
1878	775,272	1887	617,751
1879	758,947	1888	625,026

581. Carrying on to the end of 1888 the calculations given in previous years, the following may be estimated as the total quantity and value of the gold raised in Victoria from the period of its first discovery about the middle of 1851. The figures give an average per annum during the whole period of about 1,484,000 oz., which is about two and a third times the quantity raised in 1888 :—

ESTIMATED TOTAL QUANTITY AND VALUE OF GOLD RAISED IN VICTORIA, 1851 TO 1888.

Gold raised in Victoria.	Estimated Quantity.	Value, at £4 per oz.
	oz.	£
Prior to 1888 ...	55,010,933	220,043,732
During 1888 ...	625,026	2,500,104
Total ...	55,635,959	222,543,836

582. Since the first discovery, in 1851, of gold in Australasia, 84 million ounces have been raised in the various colonies, two-thirds of which was got in Victoria. The following is a statement of the quantity recorded as having been raised in the respective colonies during each year. No column is assigned to Western Australia, as, although during the last two or three years gold has been raised in that colony, chiefly in the Kimberley district, no reliable information as to the quantity has ever been obtained* :—

* Mr. Godfrey C. Knight, Registrar-General of Western Australia, in a preface to his *Western Australian Year-Book*, 1888, states that, from information given him by the Goldfields' Wardens, he estimates that over 50,000 ounces of gold were raised in his colony during 1888. It may, perhaps, be assumed that about the same quantity had been raised previously, and that the total quantity of gold obtained in Western Australia has amounted to 100,000 ounces.

GOLD PRODUCE IN AUSTRALASIAN COLONIES, 1851 TO 1888.

Year.	Victoria.	New South Wales.	Queensland.	South Australia.	Tasmania.	New Zealand
	oz.	oz.	oz.	oz.	oz.	oz.
1851	145,137	144,121	...	...	...	...
1852	2,738,484	818,752	...	...	...	...
1853	3,150,021	548,053	...	...	...	...
1854	2,392,065	237,911	...	...	...	...
1855	2,793,065	170,146	...	...	...	...
1856	2,985,735	183,946	...	...	...	...
1857	2,761,567	161,043	...	...	...	10,437
1858	2,528,227	280,558	...	...	...	13,534
1859	2,280,717	323,984	...	...	...	7,336
1860	2,156,700	381,614	4,127	...	...	4,538
1861	1,967,453	459,879	1,077	...	...	194,031
1862	1,658,281	616,910	190	...	...	410,862
1863	1,627,105	467,399	3,937	...	...	628,450
1864	1,545,437	341,954	22,037	...	...	480,171
1865	1,543,188	364,541	25,339	...	...	574,574
1866	1,478,280	287,534	22,916	...	348	735,376
1867	1,433,246	269,407	49,092	...	1,363	686,905
1868	1,634,200	258,774	165,801	...	692	637,474
1869	1,337,296	252,130	138,221	...	137	614,281
1870	1,222,798	240,402	136,773	...	964	544,880
1871	1,355,477	321,469	171,937	...	6,005	730,029
1872	1,282,521	424,100	186,019	2,494	6,969	445,370
1873	1,241,205	360,850	194,895	98	4,661	505,337
1874	1,155,972	270,710	375,586	8,351	4,651	376,388
1875	1,095,787	229,386	391,515	13,742	3,010	355,322
1876	963,760	155,166	374,776	9,857	11,107	322,016
1877	809,653	122,629	428,104	11,811	5,777	371,685
1878	775,272	117,978	310,247	10,746	25,249	310,486
1879	758,947	107,640	288,556	14,250	60,155	287,464
1880	829,121	116,751	267,136	13,246	52,595	305,248
1881	858,850	145,532	270,945	16,976	56,693	270,561
1882	898,536	129,233	224,893	15,669	49,122	251,204
1883	810,047	122,257	212,783	15,939	46,577	248,374
1884	778,618	105,933	307,804	21,455	42,340	229,946
1885	735,218	100,667	310,941	18,327	41,241	237,371
1886	665,196	98,446	340,998	26,315	31,014	227,079
1887	617,751	108,101	425,923	36,569	42,609	203,869
1888	625,026	85,295	481,643	16,763	39,610	201,219
Total	55,635,959	9,931,201	6,134,211*	252,608	532,889	11,421,817

583. According to the above figures the total quantity of gold raised in each colony from 1851 to 1888 has been as follows:—

SUMMARY OF GOLD PRODUCE OF AUSTRALASIA, 1851 TO 1888.

	Oz.		Oz.
Victoria	55,635,959	South Australia	252,608
New Zealand	11,421,817	Western Australia	100,000†
New South Wales	9,931,201		
Queensland	6,134,211	Total	84,008,685
Tasmania	532,889		

* This estimate, which has been carefully compiled from official documents, is higher by 45,426 ounces than that furnished by the Registrar-General of Queensland and published in the "Australasian Statistics, 1888," for which see Table XIX. in Appendix A., at end of this volume.

† See footnote to paragraph 582 *ante*.

584. The average value of the gold raised varies in the different colonies. If it be estimated at £4 per ounce, the total value would be £336,034,740, or if at £3 15s. per ounce it would be £315,032,569.*

Value of
gold raised
in Austral-
asia.

585. By the following table, which, with the exception of the figures for Australasia, has been taken from the report for 1888 of Mr. James P. Kimball, director of the United States Mint, it appears that during the four years ended with 1887 the world's annual production of gold has averaged close upon 5 million ounces, the largest quantity being produced in the United States, the next largest in Australasia, and the next in Russia:—

Gold pro-
duce of the
world, 1884
to 1887.

GOLD PRODUCE OF EACH COUNTRY, 1884 TO 1887.†

Countries.	1884.	1885.	1886.	1887.
	oz.	oz.	oz.	oz.
Australasia ...	1,502,543	1,442,437	1,389,048	1,434,822
Europe —				
Russia ...	1,057,890	1,225,414	992,288	971,717
Sweden ...	643	1,511	2,154	2,154
Germany ...	17,839	44,292	34,231	72,352
Austria-Hungary ...	53,291	53,484	53,484	60,331
Turkey ...	321	321	321	321
Italy ...	4,564	4,564	6,268	6,268
Asia—				
British India ...	...	6,525	20,378	15,460
China ...	300,913	224,898	176,524	162,896
Japan ...	9,514	8,518	10,703	18,128
Africa ...	40,177	66,952	69,523	92,826
America—				
Canada ...	46,124	34,713	64,895	66,245
United States ...	1,489,589	1,537,930	1,692,694	1,595,979
Mexico ...	57,213	41,913	29,699	39,856
Salvador ...	...	...	...	3,214
Costa Rica ...	...	289	4,211	4,211
Colombia ...	186,488	120,918	120,918	120,918
Venezuela ...	226,055	226,055	161,353	161,353
Brazil ...	30,599	38,699	48,277	48,277
Peru ...	5,786	7,264	5,464	5,464
Bolivia ...	3,504	3,504	3,504	3,504
Chili ...	16,071	16,071	16,071	16,071
Argentine Republic ...	3,793	3,793	964	1,446
The World ...	5,052,917	5,110,065	4,902,972	4,903,813

586. According to the figures, the gold raised in the world during 1887, if valued at £4 per ounce, would be £19,615,252; or if at

Value of the
world's gold
produce,
1884-1887.

* Pure gold is worth £4 4s. 11½d., and standard gold (22 carats fine) £3 17s. 10½d.

† See U. S. Mint Report, 1888, pages 212 and 213, where the quantities are given in kilogrammes, which have been converted into ounces on the assumption that a kilogramme is equal to 32.142 oz. troy. When the figures for any year were not given by Mr. Kimball, those for a previous year have been inserted.

£3 15s. per ounce, it would be £18,389,298. During the four years the value of the whole quantity raised (19,969,767 oz.) would be £79,879,068 at the former, or £74,886,625 at the latter valuation.

Silver raised
in Aus-
tralasian
colonies.

587. Some years since a silver mine was worked at St. Arnaud, in Victoria, but after a time it ceased to be remunerative, and the workings were abandoned. Since the establishment of a branch of the Royal Mint in Melbourne, a certain quantity of silver has been extracted annually from the crude gold lodged there for coining, and latterly the whole quantity of silver produced in Victoria has been from that source. It is difficult to obtain reliable information respecting silver produce, as in consequence of the silver being generally associated with lead and other metals, it is found economical to send the ore in a concentrated form to Europe for smelting. For Queensland and South Australia* no definite returns are available; and but little silver has been raised in Western Australia and Tasmania. The following, so far as is known, are the quantities raised in Victoria, New South Wales, and New Zealand during each of the twenty-six years ended with 1888:—

SILVER PRODUCE IN AUSTRALASIAN COLONIES, 1863 TO 1888.

Year.			Victoria.†	New South Wales.	New Zealand.
			oz.	oz.	oz.
1863	...	...	1,098	...	...
1864	...	...	5,688	...	...
1865	...	...	3,379	...	...
1866	...	...	2,348	...	...
1867	...	...	78	...	...
1868	...	...	5,761	...	...
1869	...	...	...	753	11,063
1870	...	...	...	13,868	37,123
1871	...	...	...	71,311	80,272
1872	...	...	8,011	49,544	37,064
1873	...	...	14,347	66,997	36,187
1874	...	...	11,906	78,027	40,566
1875	...	...	21,842	52,553	29,085
1876	...	...	26,355	69,179	12,683
1877	...	...	19,717	31,409	33,893
1878	...	...	22,995	60,563	23,018
1879	...	...	23,728	83,164	20,645
1880	...	...	23,247	91,419	20,005
1881	...	...	20,957	57,254	18,885

* It is known that in Queensland 1,190 tons of silver-lead ore, valued at £44,015, were raised in 1888; 2,183 tons, valued at £80,092, in 1887; 1,631 tons, valued at £52,797, in 1886; 2,377 tons, valued at £49,922, were raised in 1885; and 15,519 tons, valued at £224,669, were raised in the previous six years; also that in South Australia 1,620 tons of silver-lead ore, valued at £23,349, were raised in the ten years ended with 1884.

† In Victoria and New Zealand, nearly all the silver produced has been extracted from crude gold.

SILVER PRODUCE IN AUSTRALASIAN COLONIES,
1863 TO 1888—*continued*.

Year.	Victoria.*	New South Wales.	New Zealand.
	oz.	oz.	oz.
1882	20,343	38,618	5,694
1883	22,121	77,065	16,826
1884	27,070	93,660	24,914
1885	28,951	794,174	16,624
1886	26,422	1,015,433	12,108
1887	26,321	3,137,800†	20,809
1888	28,971	6,427,000†	403
Total	391,656	12,309,791	497,867

588. The total quantity of silver raised in the three colonies, according to the table, was 13 199,314 oz., which would represent a value at 4s. per ounce of £2,639,863; or, at 3s. 6d. per ounce, of £2,309,880. Value of silver raised in Australasia.

589. The bulk of the silver raised in Australasia is from the Broken Hill mines, situated in New South Wales, at or near the Barrier Ranges, close to the eastern frontier of South Australia. The principal mine is that of the Broken Hill Proprietary Company, which has a capital of £320,000 in 160,000 shares of £2 each, paid up to £1 18s. From the time of the formation of this company on 13th August, 1885, to the 31st May, 1889, the ore treated amounted to 220,278 tons, the total yield of which was 9,756,977 ounces of silver, and 39,416 tons of lead. The dividends and bonuses paid, together with profits resulting from sales of outlying portions of the Company's property allotted to shareholders since the commencement, have amounted to a total value of £3,128,000. For the six months ended with May, 1889, the mine has paid dividends to the amount of £240,000. The manager of the mine reports that there are more than 700,000 tons of ore in sight, averaging 31 ounces of silver to the ton, and there is every hope that the present dividends may be increased. Broken Hill silver mines.

590. The next table, with the exception of the figures for Australasia, has also been taken from Mr. Kimball's Mint report for 1888, and shows that the world's production of silver during the four years ended with 1887 was 403,915,852 oz., the largest quantity being raised in the United States, the next largest in Mexico, and the Silver produce of each country.

* In Victoria and New Zealand, nearly all the silver produced has been extracted from crude gold.

† No official statement having been published in New South Wales of the quantity of silver raised in that colony in 1887 and 1888, these quantities have been estimated in the office of the Government Statist, Melbourne, from information supplied by the managers of the Broken Hill mines, and obtained from other sources.

next in Bolivia. In 1887, however, less silver was raised in the last-named than in Germany *;—

SILVER PRODUCE† OF EACH COUNTRY, 1884 TO 1887.

Countries.	1884.	1885.	1886.	1887.
	oz.	oz.	oz.	oz.
Australasia ...	145,644	839,749	1,053,963	224,438
Europe—				
Russia ...	300,849	499,808	408,428	434,624
Sweden ...	58,370	74,762	99,030	99,030
Norway ...	205,291	231,422	231,422	231,422
Germany ...	7,971,216	7,403,588	7,855,505	8,987,996
Austria-Hungary ...	1,584,601	1,617,064	1,617,064	1,716,094
Turkey ...	42,524	42,524	42,524	42,524
Italy ...	940,443	940,443	940,443	1,087,653
France ...	189,798	1,639,242	1,639,242	1,503,892
Spain ...	1,746,436	1,746,436	1,746,436	1,746,436
Great Britain ...	259,065	244,504	325,406	320,263
Asia—				
Japan ...	754,051	741,998	798,889	1,030,633
Africa ...	7,650	40,949	101,729	13,885
America—				
Canada ...	161,674	161,674	161,674	349,223
United States ...	37,741,329	39,906,800	39,442,766	41,265,667
Mexico ...	21,080,974	24,835,159	25,521,809	29,056,368
Salvador ...	...	...	...	185,588
Honduras ...	...	...	...	57,822
Columbia ...	587,781	309,367	309,367	309,367
Brazil ...	...	84,855	4,532	4,532
Peru ...	1,475,607	1,537,673	3,093,539	1,599,064
Bolivia ...	12,374,188	12,374,188	12,374,188	7,733,879
Chili ...	5,142,720	5,796,553	6,749,820	6,749,820
Argentine Republic ...	369,633	369,633	46,413	23,207
The World‡	93,139,844	101,438,391	104,564,189	104,773,428

Value of
the world's
silver
produce,
1884-1887.

591. At 4s. per ounce, the quantity of silver raised in the world during 1887 would be worth £20,954,686; or, at 3s. 6d. per ounce, it would be worth £18,335,350. The quantity raised in the four years ended with 1887 would be worth £80,783,171 at the former, or £70,685,274 at the latter valuation.§

* It is believed that the bulk of the silver produced in Germany, was derived from silver ore sent thereto from other countries to be smelted.

† See U.S. Mint Report, 1888, pages 212 and 213, where the quantities are given in kilogrammes, which have been converted into ounces on the assumption that a kilogramme is equal to 32·142 oz. troy.

‡ British India, which, according to another authority, produced silver to the value of £914,367 in 1883, does not appear to be included.

§ In 1888, according to the 19th Annual Report of the Deputy-Master of the Royal Mint, London, page 18, the highest average monthly market price per ounce of standard silver was 44½d. in January, and the lowest was 42d. in May and August, the average price for the year being 42½d., or 1½d. lower than the average price for 1887, and 2½d. lower than that for 1886. The silver in the table, taken as a whole, was probably considerably below the standard.

592. The relative values of silver and gold have always been variable. Until comparatively recent years, however, the fluctuations have been but slight. In the 102 years, 1637 to 1789, the ratio of the former to the latter was as high as 15·39 to 1, viz., in 1734; and as low as 14·14 to 1, viz., in 1760. After 1789 the ratio was never below 15 to 1, but until 1874 only twice rose above 16 to 1, viz., in 1812, when it rose to 16·11 to 1, and in 1813, when it rose to 16·25 to 1. Since 1873, the depreciation of silver and consequent difference in value between the two metals has been greater from year to year, and in 1887 it took 21·1 parts of silver to be equivalent to 1 part of gold. This is the greatest difference yet reached. The following figures show the relative values of the two metals in each of the 17 years, 1871 to 1887:—

RELATIVE VALUES OF GOLD AND SILVER, 1871 TO 1887.*

In 1871	1 part of gold was worth	15·57 parts of silver.
„ 1872	„ „	15·63 „
„ 1873	„ „	15·92 „
„ 1874	„ „	16·17 „
„ 1875	„ „	16·59 „
„ 1876	„ „	17·88 „
„ 1877	„ „	17·22 „
„ 1878	„ „	17·94 „
„ 1879	„ „	18·40 „
„ 1880	„ „	18·05 „
„ 1881	„ „	18·16 „
„ 1882	„ „	18·19 „
„ 1883	„ „	18·64 „
„ 1884	„ „	18·57 „
„ 1885	„ „	19·41 „
„ 1886	„ „	20·78 „
„ 1887	„ „	21·10 „

593. Of the gold which was raised during 1888 in Victoria, 386,392 oz. was obtained from quartz reefs, and 238,634 oz. from alluvial deposits. These figures, as compared with those of the previous year, show a decrease of 2,465 oz. in the yield of quartz reefs, but an increase of 9,740 oz. in that of alluvial workings. The respective proportions of quartz and alluvial gold raised were 63 and 37 per cent. in 1887, and 62 and 38 per cent. in 1888.

594. The value of gold raised in Victoria in proportion to the number of miners at work† fell to its lowest point in 1879, when it only amounted to £76 1s. 2d. per head; but since then it went on increasing until 1885, when it reached to £108 15s. 9d. per head. In 1886 the average was £3 17s. 5d. less, in 1887 £11 18s. 7d. less, and

* See U. S. Mint Report, 1888, page 209.

† For the number of gold miners at work in 1888, see paragraph 93, Volume I.

in 1888 £11 7s. 2d. less than in 1885. The following figures, which have been calculated from the figures supplied by the Secretary for Mines, express this proportion for the last eighteen years:—

VALUE OF GOLD PER MINER,* 1871 TO 1888.

			£	s.	d.				£	s.	d.
1871	...	...	93	6	1½	1880	...	...	81	18	11¾
1872	...	...	93	17	1½	1881	...	...	95	11	9½
1873	...	...	93	16	2½	1882	...	...	95	19	7¾
1874	...	...	99	8	3	1883	...	...	95	6	3½
1875	...	...	104	4	4	1884	...	...	106	14	6¼
1876	...	...	89	19	6¾	1885	...	...	108	15	9¼
1877	...	...	82	6	1¾	1886	...	...	104	18	4
1878	...	...	82	12	11½	1887	...	...	96	17	2
1879	...	...	76	1	2¼	1888	...	...	97	8	7

Value of gold per alluvial and quartz miner.

595. In proportion to the number of miners engaged in alluvial and quartz mining, the yield of gold from the latter has frequently been more than twice as large as that from the former. The following are the figures for the last eleven years:—

VALUE OF GOLD PER ALLUVIAL AND QUARTZ MINER, 1878 TO 1888.

—				Alluvial Miners.			Quartz Miners.		
				£	s.	d.	£	s.	d.
1878	...	...	...	47	3	6¾	138	7	7¼
1879	...	...	...	48	10	1½	118	8	7
1880	...	...	...	49	14	2	129	11	7¾
1881	...	...	...	62	0	9¾	141	19	2½
1882	...	...	...	68	14	1½	131	19	5½
1883	...	...	...	66	4	4	132	13	2
1884	...	...	...	76	4	2	144	9	10
1885	...	...	...	75	17	2	148	19	11
1886	...	...	...	72	11	2½	144	13	11½
1887	...	...	...	68	5	4	125	12	0
1888	...	...	...	76	17	7	121	8	11

Estimated gold yield, 1889.

596. The estimated yield of gold in the first half of 1889 was 293,750 oz. as against 307,010 oz. in the first half of 1888.† Twice the first quoted amount would give 587,500 oz. as the estimate for the whole of 1889, or 37,526 oz. less than the quantity actually raised in 1888, and 30,251 oz. less than the quantity raised in 1887.

Dividends of gold mining companies.

597. Exclusive of dividends paid by a few private companies, respecting which the Mining Department was unable to obtain information, the following are the amounts of dividends paid by gold

* These amounts are sometimes incorrectly spoken of as the “average earnings” of the miners. It has been pointed out on former occasions that, as a very large proportion of the miners are working on wages, the gold they raise no more represents their individual earnings than do the products of a manufactory represent the earnings of its operatives. For wages of miners, see Part “Interchange” in the first volume.

† See Mining Registrars’ Reports for first two quarters of 1888 and 1889.

mining companies in Victoria, in the last two quarters of 1888 and the first two quarters of 1889 :—

DIVIDENDS OF GOLD MINING COMPANIES, 1888-9.

Quarter ended September, 1888	...	...	...	£121,747
„ December, 1888	...	...	...	174,869
„ March, 1889	...	...	...	106,282
„ June, 1889	...	...	...	129,871
Total in 12 months				£532,769

598. Of the steam engines employed in connexion with gold mining, about a fifth are used on alluvial and four-fifths on quartz workings. The following is the number of engines in use and their horse-power in each of the last fifteen years :—

Steam engines used in mining.

STEAM ENGINES USED IN GOLD MINING, 1874 TO 1888.

—	Number.	Horse-Power.	—	Number.	Horse-Power.
1874	1,141	24,866	1882	1,074	24,692
1875	1,101	24,224	1883	1,087	25,933
1876	1,081	23,947	1884	1,104	26,228
1877	1,067	23,416	1885	1,085	26,627
1878	1,036	22,711	1886	1,072	26,920
1879	1,024	22,509	1887	1,080	27,218
1880	1,030	22,499	1888	1,119	27,472
1881	1,034	23,379			

599. The value of gold mining machines of all descriptions, as estimated by the Department of Mines, increased from £1,783,406 in 1887 to £1,838,123 in 1888. In the latter year, the value of those used in quartz mining was £1,547,760, whilst that of those used in alluvial mining was only £290,363.

Mining machinery.

600. The number of quartz reefs proved to be auriferous, as returned by the mining surveyors and registrars, was 3,856 in 1887, and 3,718 in 1888. It has been pointed out, however, that these cannot in every case be distinct reefs, as parts of the same reef in different localities are held to be independent veins, and named accordingly; and, moreover, as the lines of reef are further explored, it is found that what were supposed to be separate reefs are in reality not distinct.

Auriferous reefs.

601. The approximate area of auriferous ground worked upon during the last quarter of 1888 was stated to be $325\frac{1}{2}$ square miles. The figures are derived from estimates, not from actual surveys, and they vary from year to year. As the different gold-workings are

Extent of auriferous ground.

abandoned by the miners, they are excluded from the returns, which only take into account the ground on which gold mining operations are actually being carried on.

Average
yield of
quartz.

602. It is impossible to obtain an exact statement of the yield of auriferous quartz in any year, owing to the fact that many of the owners of machines for crushing quartz are unable to give, or are precluded from giving, information respecting their operations. The officers of the Mining Department, however, succeeded in obtaining particulars respecting the crushing of 780,733 tons in 1887, and 734,313 tons in 1888. The average yield per ton of these crushings was 9 dwt. 9·95 gr. in the former, and 9 dwt. 17·96 gr. in the latter year. From similar estimates, extending over a long series of years, and embodying information respecting the crushing of nearly 24,150,000 tons of quartz, an average is obtained of about 10 dwt. 11 gr. of gold to the ton of quartz crushed.

Gold from
various
matrices.

603. The following is the estimate of the Mining Department* of the gross and average yield of nearly 41½ millions of tons of the various minerals and drifts from which gold is obtained in Victoria. The quantity of gold included in the estimate is about a fourth of the total yield of the Victorian gold-fields from the period of the first gold discoveries to the end of 1888:—

GOLD FROM VARIOUS MATRICES.

Matrix.	Quantity treated.	Yield of Gold.	
		Total.	Average per ton.
<i>From Quartz Reefs.</i>	tons.	oz.	oz. dwt. gr.
Quartz	24,121,249	12,591,992	0 10 10·57
Tailings and mullock ...	2,242,234	347,542	0 3 2·39
Pyrites	124,245	266,707	2 2 22·37
<i>From Alluvial Workings.</i>			
Washdirt	14,553,245	1,076,653	0 1 11·51
Cement	389,381	90,900	0 4 16·05
Total	41,430,354	14,373,794	0 6 22·53

Deep shafts.

604. The ten deepest shafts in the colony are those of Lansell's 180 mine, Sandhurst, 2,529 feet; Magdala (now Moonlight) Company, Stawell, 2,409 feet; Victoria Reef Quartz Company, Sandhurst, 2,302 feet; Victory and Pandora Company, Sandhurst, 2,300 feet; North Old Chum Company, Sandhurst, 2,210 feet; New Chum and

* Mineral Statistics 1888, Statement No. 6.

Victoria Company, Sandhurst, 2,196 feet; Great Extended Hustler's Company, Sandhurst, 2,040 feet; Garden Gully United Company, Sandhurst, 2,040 feet; Old Chum Company, Sandhurst, 2,027 feet; Lazarus Company, Sandhurst, 2,020 feet. It thus appears that the greatest depth to which the earth's crust has been pierced in this colony by a shaft is a little over 2,500 feet.*

605. Since the first issue of gold-mining leases, the total number granted has been 2,242, giving the right to mine over an area amounting in the aggregate to 310,399 acres. Of these leases, 690, for 17,076 acres, were granted in 1888, and 1,782, for 38,837 acres, were in force at the end of that year. Gold-mining leases.

606. Silver, tin, copper, antimony, lead, and iron have been mined for at different times in Victoria, but little, if any, of these ores were raised in 1888. The silver obtained in that year was, as has already been stated, extracted at the mint during the process of refining the gold. The following metals also exist in Victoria, but up to this date have not been discovered in paying quantities:—Bismuth, cobalt, cadmium, manganese, molybdenite, osmiridium, and zinc-blende. Various limestones and marbles, as well as kaolin and other clays, also exist, and have been worked to a certain extent. Minerals other than gold existing in Victoria.

607. Many attempts have been made to mine for coal, but the coal seams hitherto worked have been too thin to yield a profit; thicker seams, however, have been discovered, chiefly in South Gippsland, where also large deposits of brown coal have been found, and it is anticipated that valuable coal-fields will be opened up in this district.† Mr. A. W. Howitt, Secretary for Mines, reports as follows respecting the possible future discovery of profitable coal seams ‡:—

The general results of the borings in search of coal, though in some cases disappointing, have been in the main satisfactory, the further extensions of several known coal seams and the occurrence of others not previously known having been ascertained. Though the evidence so far is to the effect that Victoria possesses only one seam exceeding 3 feet in thickness (the 4ft. 8in. seam at Mirboo), it is nevertheless likely that further discoveries will be made, and it may be confidently stated that what has been proved by means of bores with respect to smaller seams, ranging from 20 inches to 36 inches, is sufficient to justify further exploration by means of sinking, and the expectation that, with good facilities for carriage and strictly economical methods of working, a very considerable portion of the coal required for home consumption will, in the near future, be profitably raised from Victorian mines. That coal may exist in the concealed layers beneath the Murray basin is not an entirely unfounded supposition, though there is no direct evidence

* See Report of Mining Registrars for the quarter ended 30th June, 1889, page 5.

† So far as is known, only 25,883 tons of coal have been raised, chiefly from Crown lands, in Victoria up to the present time. Of this, 11,462 tons were obtained in 1885, 1886, 1887 and 1888 by the Moe Coal Mining Company on private lands.

‡ See Fourth Report of the Secretary for Mines on Diamond Drills, page 7, Brain, Melbourne, 1889.

in its favour. In coal prospecting twelve bores have been put down, of which the two deepest exceeded 2,500 and 2,700 feet respectively. For diamond drills the average cost, exclusive of the wear and tear of diamonds, has been 12s. per foot. For other boring appliances the Government subsidy has been 5s. per foot.

Coal raised
in Austral-
asian
colonies.

608. At the present time, the coal-producing colonies of Australasia are, practically, New South Wales, Queensland, and New Zealand, whilst small quantities have been found in Victoria and Tasmania. In these 4,178,901 tons of coal were raised in 1888, but three-fourths of this quantity came from New South Wales. The following are the quantities returned as brought to the surface in each of those colonies during a series of years :—

COAL RAISED IN AUSTRALASIAN COLONIES, 1876 TO 1888.

Year.			Tons of Coal raised in—				
			New South Wales.	Queensland.	Tasmania.	New Zealand.	Victoria.
1876	...	...	1,319,918	50,627	6,100	...	1,095
1877	...	...	1,444,271	60,918	9,470	...	2,420
1878	...	...	1,575,497	52,580	12,311	162,218	Nil.
1879	...	...	1,583,381	55,012	9,514	231,218	Nil.
1880	...	...	1,466,180	58,052	12,219	299,923	3
1881	...	...	1,769,597	65,612	11,163	337,262	Nil.
1882	...	...	2,109,282	74,436	8,803	378,272	10
1883	...	...	2,521,457	104,269	8,872	421,764	428
1884	...	...	2,749,109	129,980	7,194	480,831	3,280
1885	...	...	2,878,863	209,698	5,334	511,063	800
1886	...	...	2,830,175	228,656	10,391	534,353	86
1887	...	...	2,922,497	238,813	27,763	558,620	3,357
1888	...	...	3,203,444	311,412	41,577	613,895	8,573

Coal raised
in various
countries.

609. The following is a statement of the quantity of coal raised in various countries during one year, the returns being generally those for 1884, 1885, or 1886 :—

ANNUAL PRODUCTION OF COAL IN VARIOUS COUNTRIES.*

Tons.				Tons.			
United Kingdom	...	157,518,482		Canada	...	...	2,091,976
United States (1887)	...	124,015,255		Spain	...	...	1,000,000
Germany	...	58,020,612		Japan	...	...	900,000
France	...	20,014,597		Sweden	...	...	250,600
Belgium...	...	17,253,144		Italy	...	...	220,000
Austria-Hungary	...	17,191,500		Chili	...	...	50,000
Russia	...	4,500,000		Other Countries (estimated)	...	...	8,000,000
British India	...	4,000,000					
Australasia (1888)	...	4,178,901		Total	...	...	423,205,067
China	...	4,000,000					

* The figures in this table, except those for Australasia and Canada, have been derived from the *American Almanac and Treasury of Facts*, 1888, p. 40, by Ainsworth R. Spofford, Librarian of Congress.

610. During 1888, 43 leases of Crown lands were issued, conferring the privilege of working for minerals and metals other than gold; whilst at the end of the year the number and area of leases in force in Victoria were as follow :—

LEASES FOR MINERALS AND METALS OTHER THAN GOLD,
1888.

Metals and Minerals.	Leases in force at end of 1888.			
	Number.	Area.		
		a.	r.	p.
Antimony and the Ores of Antimony ...	3	114	2	23
Calcite	1	13	3	39
Coal	17	8,103	3	13
Coal and Lignite	1	539	0	27
Copper, Galena, and Coal	1	176	1	33
Copper and the Ores of Copper	7	562	1	12
Infusorial Earth	1	94	0	14
Iron, Silver, and Lead	1	459	1	0
Ironstone	1	320	1	35
Lead and the Ores of Lead	2	241	0	32
Lead and Silver	1	266	0	0
Lignite, or Brown Coal	1	414	2	10
Silver and the Ores of Silver	14	767	0	26
Silver, Lead and Copper	2	75	3	37
Slate	13	768	0	1
Tin and the Ores of Tin	25	2,203	2	5
Total	91	15,120	2	27

611. The leases in force at the end of 1888, as shown in the table were greater by 40, and the area comprised therein was greater by 1,966 acres, than at the end of 1887. The leases for tin mining increased from 9 to 25, and those for copper mining from 3 to 7, whilst those for coal mining fell from 20 to 17. It should also be mentioned that besides leases there were 198 licences issued during the year to search for metals and minerals other than gold, of which 157 were for coal.

612. According to the estimate of the Mining Department, the following are the values of metals and minerals other than gold raised in Victoria from 1851 to the end of 1888 :—

VALUE OF MINERALS AND METALS OTHER THAN GOLD,
1851 TO 1888.

Name.	Estimated Value.		
	1851 to 1887.	Year 1888.	Total.
	£	£	£
Silver*	81,925	4,800	86,725
Tin	665,710	961	666,671
Copper and copper ore	190,922	10	190,932
Antimony	169,295	...	169,295
Lead	5,326	14	5,340
Iron	12,535	...	12,535
Coal	21,736†	7,029	28,765
Lignite	3,542	...	3,542
Kaolin	7,444	...	7,444
Flagging	70,604	901	71,505
Slates	7,461	1,185	8,646
Gypsum	7	...	7
Magnesite	12	...	12
Ores, mineral earthy clays, etc. ...	10,901	...	10,901
Diamonds	108	...	108
Sapphires, etc.	630	...	630
Total	1,248,158	14,900	1,263,058

Miners for
minerals
other than
gold.

613. The following, according to the estimate of the Mining Department, is the number of men engaged in mining for various kinds of minerals or metals other than gold‡ at the end of 1888. The total shows a falling-off of 10 as compared with 1886 :—

MINERS FOR MINERALS OTHER THAN GOLD, 1888.

Number of Miners.				Number of Miners.			
Antimony ... ..	...	...	3	Lead ... ..	...	...	6
Coal ... ..	...	...	55	Lignite ... ..	...	...	12
Freestone ... ..	...	...	40	Silver and lead ... ..	...	...	38
Granite ... ..	...	...	13	Slate and flag ... ..	...	...	108
Infusorial earth ... ..	...	...	3	Tin ... ..	...	...	68
Iron ... ..	...	...	2				
Kaolin ... ..	...	...	3	Total ... ..	...	...	351

Revenue
from gold-
fields.

614. The revenue derived from the gold-fields amounted to £14,584 in 1886-7, and £17,268 in 1887-8. The amount in the latter year was made up of the following items :—

* Of late years the silver produced has been extracted from gold in the process of refinement at the Melbourne branch of the Royal Mint.

† The quantity of coal raised was 25,883 tons, inclusive of 11,462 tons raised by the Moe Coal Mining Company on private lands in 1886, 1887 and 1888.

‡ For number of gold miners, see paragraph 93, Volume I.

REVENUE FROM GOLD-FIELDS, 1887-8.

	£
Miners' rights	5,839
Business licences...	302
Rents for leases of auriferous and mineral lands ...	7,921
„ mining on private property ...	1,959
Water-right and searching licences ...	1,247
Total	<u>17,268</u>

615. The State aid to the mining industry during the year 1887-8, including the cost of the Mining Department, may be set down at £117,837, as compared with £103,654 in 1886-7.* The former sum is made up of £24,230, cost of the Mining Department and Mining Boards; £80,742 to assist miners in prospecting operations, and including the cost and working expenses of diamond drills; and £12,865 for coal-boring, geological and underground surveys, cutting tracks in unexplored regions, etc. The most important of these is the second item, usually known as the "Prospecting Vote," as it is a direct encouragement to those engaged in mining operations. A few years ago the expenditure under this head was only £20,000; but it has latterly amounted to about £80,000. State aid to mining.

616. During the period from 1875-6 to 1879-80, the sum of £21,050 was lent to mining companies, but only £1,237 has since been repaid. Of the balance outstanding (£19,813), as much as £15,813 has been written off as non-recoverable. Loans to mining companies.

617. In 1886-7, £21,000, and in 1887-8, £21,630, was expended on the purchase and working (including office expenses) of diamond drills, as against which no set-off whatever appears in the revenue returns of the latter, and only six shillings—"for the use of boring rods"—in those of the former, year. Diamond drills.

618. Of the fifteen diamond drills belonging to the Mining Department, nine were engaged in alluvial prospecting, five in coal prospecting, one in boring for water, at the end of June, 1889. At the same date the two Tiffin water augers belonging to the Government were engaged in boring for water. Operations of diamond drills.

619. An Act to legalise mining for gold and silver on private property,† and to compensate the owner and occupier thereof for the damage sustained by reason of the land being taken, or of their being deprived of possession of the surface thereof, in consequence of mining Mining on private property.

* See page 151 of the first volume of this work.

† *The Mining on Private Property Act 1884* (43 Vict. No. 796).

operations, came into force on the 24th November, 1884. Between that date and the 31st December, 1887, 559 leases were issued under it, covering an area of 108,169 acres; and during the year 1888, 139 leases were issued, covering an area of 23,098 acres.

Value of
mining
produce.

620. The estimated value of the produce raised from Victorian mines and quarries in 1888 is summarized as follows:—

VALUE OF MINING PRODUCE, 1888.

					£
Gold	...	...	...	...	2,500,104
Other metals and minerals	...	...	...	...	14,900
Stone from quarries	...	...	...	...	196,020
Total	...	...	...	...	£2,711,024

Agricul-
tural,
pastoral,
and mining
produce.

621. The estimated value of the agricultural, pastoral, and mining produce raised in Victoria, during each of the last fifteen years, is given in the following table. It should be borne in mind that the prices of agricultural and pastoral produce, on which the value mainly depends, fluctuate from year to year.* In several of the years the value of the pastoral produce was greater than that of the other two industries combined:—

VALUE OF AGRICULTURAL, PASTORAL, AND MINING PRODUCE,
1874 TO 1888.

Year.	Estimated Value of—			Total.
	Agricultural Produce.	Pastoral Produce.†	Mining Produce.‡	
	£	£	£	£
1874	4,410,436	9,840,562	4,740,679	18,991,677
1875	4,835,894	9,541,551	4,475,876	18,853,321
1876	5,574,239	10,069,570	3,949,135	19,592,944
1877	5,792,898	8,652,471	3,322,264	17,767,633
1878	4,912,745	8,360,265	3,211,990	16,485,000
1879	5,875,313	6,375,965	3,136,527	15,387,805
1880	5,395,021	9,855,800	3,397,661	18,648,482
1881	5,893,874	8,684,218	3,533,658	18,111,750
1882	6,439,972	9,297,812	3,681,245	19,419,029
1883	7,372,143	10,203,914	3,357,252	20,933,309
1884	6,565,527	9,887,229	3,228,738	19,681,494
1885	7,118,388	9,049,679	3,091,244	19,259,311
1886	7,260,735	8,911,336	2,839,120	19,011,191
1887	7,078,653§	8,651,599§	2,661,625	18,391,877§
1888	6,601,601	9,016,573	2,711,024	18,329,198

* For prices of agricultural produce in different years, see table following paragraph 508 *ante*.

† The pastoral produce referred to is that derived from the live stock kept by farmers as well as that kept by graziers and squatters.

‡ Including the value of stone raised from quarries.

§ Corrected since last publication.

622. The census taken on the 3rd April, 1881, enabled an approximate return to be made of the value of articles manufactured in the twelve months prior to that date, and the net result has already been stated to be £5,373,091.* On the assumption that the value of manufacturing produce has increased since the census in the same proportion as the number of hands employed, or by 43 per cent., the value in 1888 would be £7,683,520, which amount being added to the figures in the lowest line of the last column in the above table, a total of the gross value of agricultural, pastoral, mining, and manufacturing produce will be obtained for that year, amounting in the aggregate to £26,012,718.

Agricultural,
pastoral,
mining,
and manu-
facturing
produce.

623. The patents for inventions applied for in 1888 numbered 883, or 207 more than in 1887, and a larger number than in any previous year. Since 1854 the total number of patents applied for has been 6,448.

Patents.

624. The *Victorian Copyright Act* (33 Vict. No. 350) came into force in December, 1869. Copyrights—especially those for literary productions—have been increasingly numerous during the last six years, during which period they averaged about 564 per annum; whereas prior to 1883 the largest number registered was 347. The following copyrights have been registered since the passing of the Act:—

COPYRIGHTS, 1870 TO 1888.

Subject of Copyright.	Copyrights Registered.		
	Prior to 1888.	During 1888.	Total.
DESIGNS.			
Articles of manufacture, chiefly of—			
Metals	294	16	310
Wood, stone, cement, or plaster ...	58	5	63
Glass	9	...	9
Earthenware	9	1	10
Ivory, bone, papier-maché, etc. ...	48	7	55
Woven fabrics	17	1	18
Miscellaneous	17	1	18
LITERARY PRODUCTIONS.			
Literary works	3,126	463	3,589
Dramatic „	107	8	115
Musical „	100	4	104

* See paragraph 573 *ante*.

COPYRIGHTS, 1870 TO 1888—continued.

Subject of Copyright.					Copyrights Registered.		
					Prior to 1888.	During 1888.	Total.
WORKS OF ART.							
Paintings	...	...	...	...	6	...	6
Drawings	...	...	...	...	26	4	30
Engravings	...	...	...	...	1,125	116	1,241
Photographs	...	...	...	...	1,050	7	1,057
Sculpture	...	..	...	...	5	...	5
Total	...	...	...	...	5,997	633	6,630

Trade-
marks.

625. Provision for the registration of trade-marks was established under the *Trade-marks Registration Act* 1876 (40 Vict. No. 539), which came into operation on the 22nd September of that year. The registration of a person as the proprietor of a trade-mark is *prima facie* evidence of his right to its exclusive use, subject to the provisions of the Act as to its connexion with the good-will of a business. From the period of the commencement of the Act to the end of 1888, 2,013 trade-marks were submitted for registration, and 1,350 were registered. During the year 1888, the number submitted was 344—or 108 more than in 1887, and the number registered 169—or 1 more than in 1887.

PART VII.—LAW, CRIME, ETC.

626. The system whereby persons acquiring possession of land, Transfer of Land Statute. either by transfer, inheritance, or other means, may receive a title thereto direct from the Crown, was introduced into Victoria in the year 1862, and continues in force to the present period.*

627. All lands alienated from the Crown since the introduction Lands under the Statute. of the system have come at once under its provisions; and lands alienated prior to its inauguration can be brought under them by application, provided a clear title be produced, or a title containing only a slight imperfection. In the latter case, the title is given subject to such imperfection, which is noted on the deed.

628. The assurance and indemnity fund established under the *Transfer of Land Statute*, to secure the Government against possible losses, is formed chiefly by the payment of an amount equal to one half-penny in the pound of the value of all lands which become subject to its operation. The balance to the credit of this fund on the 30th June, 1888, was £54,840,† of which £34,823 had been invested in Government stock. Thirteen claims upon the fund, of which two—for £83 and £24 respectively—were satisfied in 1887-8, have been substantiated since its first formation, and sums amounting in the aggregate to £3,555 have been paid to claimants. Assurance fund.

629. In 1888, as compared with 1887, an increase took place in the number of applications to bring the land under the *Transfer of Land Statute* (29 Vict. No. 301) and in the extent and value of land brought thereunder. On the other hand, a moderate increase took place in the number of transfers, mortgages, leases, etc., and of miscellaneous transactions, but a slight decrease in the number of certificates of title issued and in the fees received. The following were the transactions in the two years :— Transactions under the Land Statute, 1887 and 1888.

* This system was originated by the late Sir R. R. Torrens, whence it is commonly known as "Torrens's system." He first introduced it into South Australia, but it has since been adopted by all the Australasian colonies.

† During the last three years the Assurance Fund has been reduced by £75,073; that amount having been advanced towards the purchase of land adjoining the Titles Office (under Act 49 Vict. No. 835). On this advance the fund receives 4 per cent. per annum from the general revenue.

TRANSFER OF LAND STATUTE, 1887 AND 1888.

		1887.	1888.
Applications to bring land under the Act	... number	1,199	1,863
Extent of land included	... acres	71,368	72,647
Land brought under the Statute—			
By application	... acres	72,806	47,248
	... value	£1,732,860	£3,336,978
By grant and purchase from the Crown	... acres	364,392	439,968
	... purchase money	£442,095	£644,112
Certificates of title issued	... number	15,013	21,539†
Transfers, mortgages, leases, releases, surrenders, etc.	„	41,310	57,850
Registering proprietors	„	37	11
Other transactions*	„	42,889	63,278
Forms and extras	„	429	655
Fees received	... value	£46,025	£70,213

Proportion of land under the Statute.

630. The total quantity of land under the *Transfer of Land Statute* at the end of 1888 was 12,078,163 acres, the declared value of which, at the time it was placed under the Act, was £39,659,347. The land granted and sold up to the end of 1888 was 15,584,079 acres. It, therefore, follows that at that period rather more than three-fourths of the alienated land in the colony was subject to the provisions of this Statute.

Land under Act by application and otherwise.

631. Of the whole extent of land under the Statute, 1,263,899 acres, valued at about 25¼ millions sterling, were brought thereunder by application, and the remainder, amounting to 10,814,264 acres, valued at about 13¾ millions sterling, came under its provisions by virtue of its having been purchased from or granted by the Crown since the Act was passed.‡

Transactions in Equity.

632. Since the passing of the *Judicature Act* 1883 (47 Vict. No. 791), which, with certain exceptions, came into operation on the 1st July, 1884, the business in Equity has fallen off materially, as will be seen by the following figures:—

TRANSACTIONS IN EQUITY, 1883 TO 1888.

Number of—	1883.	1884.	1885.	1886.	1887.	1888.
Suits by bill	81	38	1	2	...	...
Petitions filed	15	8	5	1	...	...
Commissions issued	4	4	...	...	...	...
Decrees issued	38	37	14	3	4	...
Orders issued	132	106	71	51	22	24
Reports issued	20	20	10	9	7	6
Recognizances entered into	5	2	...	...	...	...
Rolls filed	40	29	2	1	...	...

* Not including copies of documents supplied.
† Including 3,456 to Friendly Societies.
‡ See paragraph 627 ante.

633. In 1888, as compared with 1887, there was a falling-off of 3 per cent. in the number of probates and letters of administration issued, but an increase of 37 per cent. in the value of property bequeathed. The average value of each estate in 1887 was £2,215, and in 1888, £3,087. The following are the figures for those years :—

PROBATES AND LETTERS OF ADMINISTRATION, 1887 AND 1888.

Year.	Probates.		Letters of Administration.*		Both.	
	Number.	Property sworn under—	Number.	Property sworn under—	Number.	Property sworn under—
		£		£		£
1887 ...	1,450	4,373,035	898	828,095	2,348	5,201,130
1888 ...	1,400	6,006,984	876	1,020,000	2,276	7,026,984
Increase	...	1,633,949	...	191,905	...	1,825,854
Decrease	50	...	22	...	72	...

Probates and letters of administration.

634. During the twenty-four years ended with 1888, the value of the property respecting which probates and letters of administration were issued amounted to fully sixty-four and three-quarter millions sterling (£64,800,512). During the same period the total number of deaths in the colony was 302,222, so that the average value of property left by each person who died was £214. The average value in 1886 was £303; in 1887, £325; and in 1888, £431; or £339 in the triennial period.†

Value of property left at death.

635. According to the present law,‡ duties are levied in Victoria on the net value of real and personal estates of deceased persons within the colony upon the following scale (half duty only being paid by widows, children, or grandchildren) :—

Scale of probate, etc., duties.

SCALE OF DUTIES ON ESTATES OF DECEASED PERSONS.§

Estates of less than	£1,000 in value	...	1 per cent.
"	£1,000 to £5,000	"	2 "
"	£5,000 to £10,000	"	3 "
"	£10,000 to £20,000	"	4 "
"	£20,000 to £30,000	"	5 "
"	£30,000 to £40,000	"	6 "
"	£40,000 to £60,000	"	7 "
"	£60,000 to £80,000	"	8 "
"	£80,000 to £100,000	"	9 "
"	£100,000 and upwards	"	10 "

* Including those granted to the Curator of Intestate Estates.

† See latter portion of Part "Accumulation," Vol. I.

‡ The Acts relating to estates of deceased persons are 34 Vict. No. 338, 35 Vict. No. 403, 36 Vict. No. 427, and 39 Vict. No. 523.

§ Whilst these pages were passing through the press, the law relating to estates of deceased persons was altered by the *Duties on Estates Amendment Act* 1889 (53 Vict. No. 1,053), the effect being to exempt estates of the net value of £1,000 and under from the payment of succession duty, and to exempt estates of the net value of less than £5,000 from the payment of succession duty upon £1,000 of such net value.

Amount of
probate, etc.,
duties.

636. The amount realised by the State in 1888 from duties on estates of deceased persons was more than in 1887 by £68,232, more than in 1886 by £90,021, and very much more than in any previous year. The amounts fluctuate considerably from year to year, as will be observed by the following figures for the last eighteen years:—

DUTIES ON ESTATES OF DECEASED PERSONS, 1871 TO 1888.

		£			£
1871	...	17,069	1880	...	48,697
1872	...	37,643	1881	...	78,914
1873	...	39,026	1882	...	78,547
1874	...	67,998	1883	...	96,427
1875	...	50,057	1884	...	125,697
1876	...	33,638	1885	...	85,979
1877	...	82,201	1886	...	129,479
1878	...	45,470	1887	...	151,268
1879	...	47,607	1888	...	219,500

Intestate
estates.

637. The new intestate estates dealt with by the Curator in 1887 numbered 310; those in 1888 numbered 301. The estimated value of such estates amounted to £53,093 in the former and to £58,144 in the latter year.* The sums received by the Curator on these estates and on others remaining from former years were £68,476 in 1887 and £53,031 in 1888. In the eighteen years ended with 1888, the number of intestate estates dealt with was 4,189, and their estimated value £764,174. The amount received by the Curator in respect to these estates during the eighteen years was £786,740.

Divorce and
matrimonial.

638. Under the head of Divorce and Matrimonial Causes there were 28 decrees for dissolution of marriage in 1888 as against 18 in 1887. One decree for judicial separation was pronounced in 1888, and five such decrees in 1887. The following was the business done in the two years:—

DIVORCE AND MATRIMONIAL, 1887 AND 1888.

		1887.	1888.
Petitions for dissolution of marriage	... number	27	38
„ judicial separation	... „	7	4
„ alimony	... „	6	—
Decrees for dissolution of marriage	... „	18	28
„ judicial separation	... „	5	1
„ alimony	... „	3	1

Divorces in
twenty-
seven years.

639. Since the Act 25 Vict. No. 125—which first conferred upon the Supreme Court of Victoria jurisdiction in matters matrimonial—came into operation in 1861, 270 decrees for dissolution of marriage and 49 decrees for judicial separation have been made.

* These numbers and values are included in those given in the table following paragraph 633 ante.

640. As the marriages in 1888 numbered 8,946, the petitions for dissolution of marriage were in the proportion of 1 to every 235 marriages, and the decrees for dissolution of marriage were in the proportion of 1 to every 319 marriages. In the 17 years ended with 1887, the marriages numbered 98,878, the petitions for dissolution of marriage numbered 379, and the decrees for dissolution of marriage numbered 182. Thus, during the 17 years referred to, there was 1 petition to dissolve marriage to every 260 marriages celebrated, and 1 marriage was dissolved to every 543 marriages celebrated.

Proportion
of divorces
to mar-
riages.

641. In proportion to the number of marriages, the petitions for dissolution of marriage are about twice as numerous in Victoria as in England and Wales, the annual average per 1,000 marriages over a series of years being 3·79 in the former and 1·88 in the latter. The decrees for the dissolution of marriage are also, in proportion to the number of marriages, much more numerous in Victoria, the number per 10,000 being 18·21 as against 9·5 in England and Wales. The proportion of decrees to petitions is, however, somewhat higher in England and Wales than in Victoria, being 50 per cent. in the former, but not quite 48 per cent. in the latter.

Divorces in
Victoria
and Eng-
land.

642. The divorce law of France dates from the latter part of 1884. In the three years ended with 1887 there were 10,863 divorces, the marriages in the same three years being 44,434. There was thus 1 divorce to about 77 marriages. In some of the American States the proportions are much higher. It is stated that in Rhode Island 1 divorce takes place to every 12 marriages; in Massachusetts 1 to every 21 marriages; and in Ohio 1 to every 26 marriages; whilst in the city of San Francisco, during the 21 years ended with 1887, there was 1 divorce to every 10 marriages, and in the last eight years of that period there was 1 to every 6 marriages.

Divorces in
France and
the United
States.

643. The fees in Equity amounted in the aggregate to £150 in 1887, and to £136 in 1888; those on Probates amounted to £1,870 in 1887, and to £1,901 in 1888; those in divorce amounted to £89 in 1887, and to £84 in 1888. The total amount of these fees was thus £2,109 in 1887, and £2,121 in 1888.

Fees in
Equity, etc.

644. The moneys collected and appropriated in the department of the Master-in-Lunacy, on behalf of patients (including "percentage" and fees) increased from £27,500 in 1887, to £31,363 in 1888. It may be mentioned that the total expenditure in 1887-8 on Hospitals for the Insane was £101,994, so that, after allowing for moneys collected from private sources, the net cost to the State on account of lunatic patients in that year was about £70,600.

Collections
in Lunacy.

Insolven-
cies.

645. In the twenty-one years ended with 1888, 14,658 insolvencies took place in Victoria, with liabilities amounting to nearly 12³/₄ millions sterling, as against which assets were declared amounting to nearly 7¹/₂ millions sterling. The following is a statement of the number of insolvencies in each year, also of the declared liabilities and assets of the estates, and of the amounts by which the latter were exceeded by the former :—

INSOLVENCIES, 1868 TO 1888.

Year.	Number of Insolvencies.	As shown by the Insolvents' Schedules.		
		Liabilities.	Assets.	Deficiency.
		£	£	£
1868	863	617,764	167,226	450,538
1869	818	653,614	194,251	459,363
1870	996	479,491	150,170	329,321
1871	631	444,117	217,841	226,276
1872	804	696,868	222,770	474,098
1873	672	330,337	188,351	141,986
1874	776	543,157	269,130	274,027
1875	773	641,390	389,330	252,060
1876	712	551,814	280,962	270,852
1877	715	462,651	272,720	189,931
1878	781	677,364	408,677	268,687
1879	1,007	1,655,485	1,204,051	451,434
1880	768	526,130	298,384	227,746
1881	620	303,892	161,386	142,506
1882	500	536,194	311,186	225,008
1883	603	782,116	423,528	358,588
1884	495	479,700	264,686	215,014
1885	467	591,957	282,502	309,455
1886	559	830,176	570,867	259,309
1887	619	563,894	1,009,385	+ 445,491*
1888	479	347,658	185,871	161,787
Total	14,658	12,715,769	7,473,274	5,242,495†

Proportion
of liabilities
to assets.

646. The proportion of the assets to the liabilities, as shown by the insolvents' schedules, fluctuates considerably from year to year. In the year under review, the former amounted to 53 per cent. of the latter ; but, strange to say, in the previous year, the declared assets exceeded the declared liabilities by £445,491, or 79 per cent.† In the whole period of twenty-one years, the declared assets were in the proportion of about 59 per cent. to the declared liabilities.

* Surplus.
† The surplus shown by the returns of 1887 resulted from the fact that the declared assets of that year were largely made up of a debt of £570,597 set down as due by the Crown to the estate of Mr. W. R. Merry. Had this not been included, the declared assets, as compared with the declared liabilities, would have shown an apparent deficiency of £125,106.

† Net figures.

647. It will be observed that in 1888 insolvencies were less numerous by 140 than in 1887, and were also fewer than in any of the other years named, except 1885; the declared liabilities were less by £216,236 than in 1887, whilst the declared assets were less by £823,514 than those in that year. Comparing the year under review with 1879, when insolvencies were at their maximum, the number has fallen off by 53 per cent., and the apparent deficiency as shown by the insolvents' schedules by 64 per cent.

648. The following table shows the occupations or callings of the persons who became insolvent in Victoria during the last two years:—

OCCUPATIONS OF INSOLVENTS, 1887 AND 1888.

Occupations.	1887.	1888.
GOVERNMENT, PROFESSIONS, ARTS, EDUCATION, LITERATURE—		
Artist ... ..	...	1
Chemist	2	1
Civil servant	2	1
Comedian	1	2
Dentist	1	...
Journalist	2	1
Musician ... ..	...	2
News agent	1	...
Photographer	1	1
Printer	1	1
Schoolmaster, teacher	1	3
Solicitor	1	...
Theatrical manager	1	2
BOARD AND LODGING, DOMESTIC DUTIES, ATTENDANCE—		
Billiard-room keeper	1	...
Boarding-house keeper	11	12
Caterer	1	...
Coffee-stall keeper	1	...
Hotel-broker	2	...
Hotel-keeper	21	17
Married woman	5	1
Odd Job Help Company	1	...
Public Entertainer	1	...
Restaurant-keeper	2	2
Servants' registry office keeper	1	...
Spinster	1	...
Widow	6	1
COMMERCIAL PURSUITS—		
Accountant	1	4
Agent, commission agent... ..	16	10
Auctioneer	1	...
Bellman ... ..	...	1
Bookkeeper, clerk	11	3
Commercial traveller, canvasser	5	2
Dealer (undefined)	10	3

Insolvencies, 1888 and previous years.

Occupations of insolvents.

OCCUPATIONS OF INSOLVENTS, 1887 AND 1888—*continued.*

Occupations.	1887.	1888.
COMMERCIAL PURSUITS—<i>continued</i>—		
Debt collector	1	...
Financier	1	...
Hawker	4	1
Merchant	3	4
Salesman	2	...
Sewing machine importer	1	...
Storekeeper (undefined)	12	13
Warehouseman	1	...
CARRIERS—		
Bullock driver	1	1
Cabman	3	4
Carrier, carter	10	12
Mariner	1	...
Omnibus driver... ..	1	1
Railway employé	1	...
Station-master	1	..
Stoker ... ..	...	2
AGRICULTURAL PURSUITS AND LAND—		
Farmer, selector	53	62
Freeholder	1	...
Gardener	5	2
Nurseryman ... ..	...	1
Surveyor	1	1
Vine-grower ... ..	...	1
PASTORAL PURSUITS AND ANIMALS—		
Boundary rider... ..	1	...
Cattle dealer	1	2
Fisherman ... ..	...	1
Grazier	14	6
Groom	1	...
Horse proprietor, dealer, trainer	2	2
Livery stable keeper	1	1
Rabbit trapper	1	...
Stock and station agent	1	1
ARTIZANS, MECHANICS, LABOURERS—		
Bellows-maker ... ..	...	1
Bricklayer	4	3
Builder, contractor	55	45
Carpenter	14	12
Coachbuilder	8	1
Cooper	1	1
Dyer	1	...
Engraver	1	1
Fancy goods maker	1	...
Fire-kindler maker	1	...
Furniture-maker, dealer, warehouseman	3	1
Labourer (undefined)	75	57
Manufacturer (undefined) ... ..	...	1
Mason	1	1

OCCUPATIONS OF INSOLVENTS, 1887 AND 1888—*continued*.

Occupations.	1887.	1888.
ARTIZANS, MECHANICS, LABOURERS—<i>continued</i>—		
Monumental Mason	1	...
Painter	6	3
Plasterer	4	2
Plumber	7	3
Saddler	4	4
Shipwright	1	...
Slater ... ..	...	1
Turner	1	...
Upholsterer	1	...
Venetian-blind maker	1	...
Watchmaker, jeweller	6	6
Wheelwright	1	1
DRESS—		
Boot—Shoe-maker, dealer	21	14
Draper—Assistant to ditto	5	3
Dressmaker	2	...
Hairdresser	3	7
Hatter ... ..	...	1
Laundress	1	...
Seamstress ... ..	...	1
Shirt-maker ... ..	...	1
Tailor	6	3
FIBROUS MATERIALS—		
Flock manufacturer	1	...
Tent-maker ... ..	...	1
ANIMAL FOOD—		
Butcher	18	13
Fishmonger	2	...
Ham and beef-shop keeper	1	...
Milk-seller	1	...
Poulterer ... ..	...	1
VEGETABLE FOOD—		
Baker... ..	5	4
Confectioner	1	1
Fruiterer	6	8
Miller... ..	1	1
DRINKS AND STIMULANTS—		
Aërated water, cordial manufacturers	4	...
Brewer	2	...
Grocer	12	7
Tea-packer ... ..	...	1
Tobacconist	3	1
ANIMAL MATTERS—		
Currier	1	...
Leather merchant	1	...
Tanner	1	...
Wool-presser ... ..	...	1

OCCUPATIONS OF INSOLVENTS, 1887 AND 1888—*continued.*

Occupations.						1887.	1888.
VEGETABLE MATTERS—							
Chaff-cutter	...	...	...	...	...	1	...
French polisher	...	...	...	...	...	...	1
Hay, corn, and produce dealer	...	...	...	...	...	6	3
Saw-mill owner, sawyer	...	...	...	...	...	7	3
Stationer—Assistant to ditto	...	...	...	...	...	2	...
Timber merchant	...	...	...	...	...	2	...
Wood, coal merchant	...	...	...	...	...	3	3
Wood-splitter	...	...	...	...	...	...	5
MINING, ENGAGED IN—							
Miner	...	...	...	...	...	22	20
Mining manager	...	...	...	...	...	1	1
Mining speculator	...	...	...	...	...	2	1
Quartz-crusher	...	...	...	...	...	...	1
Stamper feeder	...	...	...	...	...	1	...
STONE, CLAY, ETC.—							
Brickmaker	...	...	...	...	...	2	5
Chimney-sweeper	...	...	...	...	...	...	1
Nightman	...	...	...	...	...	1	...
Quarryman	...	...	...	...	...	1	...
Tile-maker	...	...	...	...	...	1	...
MINERALS AND METALS—							
Blacksmith	...	...	...	...	...	5	10
Boilermaker	...	...	...	...	...	1	...
Engine driver (undefined)	...	...	...	...	...	3	3
Engineer	...	...	...	...	...	1	4
Ironfounder, dresser	...	...	...	...	...	1	1
Ironmonger	...	...	...	...	...	2	...
Machinery Merchant	...	...	...	...	...	1	...
Pyrites works, owner of	...	...	...	...	...	2	...
INDEFINITE AND NON-PRODUCTIVE—							
Gentleman	...	...	...	...	...	3	3
Gentlewoman	...	...	...	...	...	1	...
Out of business	...	...	...	...	...	14	12
Total						619	479

Occupations
with most
insol-
vencies.

649. It will be noticed that the occupations which contributed most largely to the list of insolvents in the two years were those of labourers, numbering 132; farmers or selectors, 115; builders and contractors, 100; miners, 42; hotelkeepers, 38; boot and shoe makers, 35; butchers, 31; carpenters and commission agents, each 26; storekeepers, 25; boarding-house keepers, 23; and graziers 20. Of the last-named, however, 14, or 70 per cent., became insolvent in the first and only 6 in the second of the years named.

650. In the last six years insolvencies have been much more numerous in New South Wales than in Victoria; and in 1886 and 1887 they were even more numerous than in the worst year (1879) named in the table following paragraph 645 ante. In 1883, the liabilities, as shown by the insolvents' schedules, were higher in Victoria than in New South Wales, but in the last five years the liabilities similarly shown were much higher in New South Wales than in Victoria. The following are the figures for New South Wales:—

Insolventcies
in New
South
Wales.

INSOLVENCIES IN NEW SOUTH WALES, 1883 TO 1888.

Year.	Number of Insolvencies.	As shown by the Insolvents' Schedules.		
		Liabilities.	Assets.	Deficiency.
		£	£	£
1883	785	444,594	245,836	198,758
1884	918	836,165	580,195	255,970
1885	929	773,212	589,359	183,853
1886	1,221	989,262	733,127	256,135
1887	1,351	1,081,726	788,941	292,785
1889	851	659,307	459,677	199,630

651. According to statistics issued by Mr. Richard Seyd, F.G.S.,* the following are the number of failures in the United Kingdom during the nine years ended with 1887:—

Failures in
United
Kingdom.

FAILURES IN THE UNITED KINGDOM, 1879-1887.

Year.	Number of Failures.		
	In Wholesale Trades.†	In Retail Trades.‡	Total.
1879	2,546	14,091	16,637
1880	1,478	11,669	13,147
1881	1,325	10,680	12,005
1882	1,314	9,705	11,019
1883	1,361	9,238	10,599
1884	607	3,787	4,394
1885	586	4,503	5,089
1886	533	5,181	5,714
1887	619	5,233	5,852
Total	10,369	74,087	84,456

* See Annual Supplement to *The Statist*, 11th February, 1888, page 14.
† Embraces the "financial, wholesale, and manufacturing branches of trade."
‡ Consisting of "retail traders, professional men, builders, publicans, the working classes, etc."

Insolvencies
in England
and
Victoria
compared.

652. It will be noticed that by far the largest number of failures occurred in 1879, but since then a considerable falling-off has taken place in each year, but most especially in the last four years, when the numbers were fewer by about 50 per cent. than that in any of the five preceding years. This experience was very similar to that recorded in Victoria, for during the last twenty years the maximum number of insolvencies occurred in 1879 ; and in 1884 and 1885, notwithstanding the increase of population, the numbers were absolutely the lowest in the last twenty years.

Registrar-
General.

653. Important duties in connexion with the registration of deeds and other documents, public companies, bills and contracts for sale ; births, deaths, and marriages ; and patents, copyrights, and trade-marks, are performed by the Registrar-General. In 1888, as compared with 1887, there was a considerable increase in the number of transactions and in the fees received under most of these heads, the chief increase being under the *Companies Statute*. The following are the returns for the two years :—

REGISTRAR-GENERAL'S TRANSACTIONS AND FEES, 1887 AND 1888.

Nature of Transaction.	Transactions.		Fees.	
	1887.	1888.	1887.	1888.
			£	£
Registry	18,976	21,044	5,459	6,836
<i>Companies Statute</i>	14,492	36,149	3,165	10,096
Bills and contracts of sale	7,140	6,392	357	319
Births, deaths, and marriages certificates	4,326	4,297	1,072	1,065
Patents	1,249	883	1,374	1,891
Copyrights	585	617	88	88
Trade-marks	806	506	369	413
Searches in connexion with the above	22,829	26,252	1,836	1,818
Miscellaneous fees ... ..	...	...	7	56
Total	70,403	96,140	13,727	22,582

Offences re-
ported.

654. The number of offences reported to the police or magistrates during 1887 and 1888 is given in the following table ; those offences being distinguished :—1. In respect to which persons were brought before magistrates on summons, but were never in custody. 2. In respect to which arrests were made by the police. 3. In respect to which no person had been arrested or brought before magistrates up to the end of the month of March of the year following that in which the offence was reported.* An increase of 3,090 occurred in the

* It does not follow that in these instances the offender escaped altogether. He may have been arrested after the date at which the returns were made up, or on other charges, even prior to that period.

number of offences classed under the second and third heads, but a falling-off of 1,596 in the summons cases; the net increase during the year being 1,494 offences, or about 3 per cent.:—

OFFENCES REPORTED, 1887 AND 1888.

Offences in respect to which—	1887.	1888.	Increase.
1. Persons were brought before magistrates on summons	24,563||	22,967	- 1,596†
2. „ „ apprehended by the police	34,473	37,309	2,836
3. The offenders were still at large* ...	6,220	6,474	254
Total	65,256	66,750	1,494‡

655. Thirty-eight per cent. of the offences dealt with consist of those in respect to which persons are brought before magistrates on summons but are not taken into custody. These must obviously be of a lighter character than those for which arrests are made, and therefore do not demand lengthened consideration. The offences in this category classed as against the person are principally assault cases resulting from petty quarrels; those against property are chiefly cases of wilful damage to or illegal detention of property; and the remainder consist for the most part of breaches of the *Education Act*, the clause in the *Public Works Statute* relating to railways and water supply, the *Local Government Act* or municipal by-laws, the *Masters and Servants* or *Wines and Spirits Statutes*, etc. Comparing 1888 with 1887, a decrease is shown under all the heads. The following are the figures for the two years:—

OFFENCES DEALT WITH BY SUMMONS, 1887 AND 1888.§

—	1887.||	1888.	Decrease.
Offences against the person	1,500	1,216	284
„ „ property	535	463	72
Minor offences	22,528	21,288	1,240
Total	24,563	22,967	1,596
Cases dismissed by magistrates	6,590	5,220	1,370
Offender summarily convicted or held to bail...	17,973	17,747	226

* It should be pointed out that the offences for which arrests have and have not been made are not strictly comparable. They are reckoned in the former case according to the individual arrests effected, in the latter according to the offences reported, although in the perpetration of many of these more than one person may have been concerned.

† The minus (—) sign indicates decrease.

‡ Net figures.

§ This table does not embrace cases in which the offender was sentenced to imprisonment or was committed for trial. Although he might in the first instance have appeared before the magistrates on summons, such disposal would place him in custody of the police, and he would therefore be included in subsequent tables.

|| Figures amended since last publication.

Charges
counted as
persons.

656. Very full details are given of the offences which gave occasion for the apprehensions made by the police; but, in making up the returns, a person arrested more than once during the year, or arrested at one time on several charges, is counted as a separate individual in respect to each arrest or charge, and this, except where the contrary is stated, must be borne in mind by those consulting the following paragraphs and tables.*

Arrests, 1887
and 1888.

657. The persons† who were taken in charge by the Victorian police in 1888 numbered 37,309, as against 34,473 in 1887. The increase in one year was thus 2,836, or at the rate of 8 per cent.

Arrests,
1878, 1883,
and 1888.

658. The arrests in 1888, and in the first year of each of the two previous quinquennia, were as follow :—

PERSONS‡ ARRESTED, 1878, 1883, AND 1888.§

Number of Persons.	1878.	1883.	1888.
Taken into custody	25,544	27,074	37,309
Discharged by magistrates ...	7,448	8,713	13,129
Summarily convicted or held to bail	17,438	17,755	23,307
Committed for trial	658	606	873

Arrests:
proportion
to popula-
tion.

659. At the last period, it will be observed, arrests were much more numerous than at either of the two previous periods. This is also the case, if the numbers of the population be taken into account, but the arrests in proportion to population were more numerous at the first than at the middle period. The estimated average population in 1878 was 821,466; in 1883, 910,982; and in 1888, 1,062,050. The arrests were, therefore, in the proportion of 1 to every 32 persons living at the first period, 1 to every 34 persons living at the second period, and 1 to every 28 persons living at the third period.

Proportion
of times
charge was
sustained.

660. The persons summarily convicted, held to bail, or committed for trial, were, to the whole number arrested, in the proportion of 71 per cent. at the first period, 68 per cent. at the second period, and of 65 per cent. at the third period.

* For 1884, a table was compiled showing the number of charges on which each individual was arrested. See paragraph 684 *et seq. post.*

† See preceding paragraph.

‡ See paragraph 656 *ante.*

§ A statement showing, during a series of years, the numbers taken into custody, the numbers committed for trial, and the number convicted after commitment, will be found in the Statistical Summary of Victoria (first folding sheet) at the beginning of this volume.

661. There has been a slight increase in the prevalence of serious offences since 1883, but a considerable falling-off since 1878; this may be ascertained by comparing the commitments for trial with the total arrests at the three periods. These were in the proportion of 1 to every 39 arrests at the first period, of 1 to every 45 arrests at the middle period, and of 1 to every 43 arrests at the third period. Serious offences.

662. The sexes of the persons arrested, and of such of them as were discharged by magistrates, summarily dealt with, or sent for trial, were as follow at the same three periods:— Males and females arrested.

MALES AND FEMALES* ARRESTED, 1878, 1883, AND 1888.

	1878.		1883.		1888.	
	Males.	Females.	Males.	Females.	Males.	Females.
Taken into custody	19,714	5,830	21,276	5,798	31,219	6,090
Discharged by magistrates ...	5,684	1,764	6,762	1,951	11,063	2,066
Summarily convicted or held to bail	13,442	3,996	13,961	3,794	19,360	3,947
Committed for trial	588	70	553	53	796	77

663. The males and females summarily convicted, held to bail, or committed for trial, were, to the whole numbers of the same sexes arrested, in the proportions respectively of 71 per cent. and 70 per cent. in 1878; of 68 per cent. and 66 per cent. in 1883; and of 65 per cent. and 66 per cent. in 1888. Cases in which charge was sustained.

664. The next table shows the relative proportions of males and females arrested, and of those of them who were discharged, summarily dealt with, or committed for trial at the same three periods:— Relative proportions of male and female criminals.

MALES AND FEMALES.—RELATIVE PROPORTIONS ARRESTED, 1878, 1883, AND 1888.

	Number of Females to 100 Males.		
	1878.	1883.	1888.
Taken into custody	29·57	27·25	19·51
Discharged by magistrates	31·03	28·85	18·67
Summarily convicted or held to bail...	29·73	27·18	20·39
Committed for trial	11·90	9·58	9·67

* See paragraph 656 ante.

Relative
proportions
of male and
female
criminals
at three
periods.

665. It will be observed that, relatively to the males taken into custody or summarily convicted, the proportion of females similarly dealt with was at the last period much lower than at either of the former periods; but the proportion of females committed for trial was a fraction larger at the last than at the middle period. At all the periods, the proportion of female to male criminals was much lower than the proportion that females bore to males in the total population; at the first period the females in the colony were in the proportion of 86, and at the second of 90, and at the third period of about 88, to every 100 males.

Causes of
arrest.

666. A condensed statement of the offences for which arrests were made in the same three years, together with the numbers arrested for each offence, will be found in the following table:—

CAUSES OF ARREST, 1878, 1883, AND 1888.

Offence.	1878.	1883.	1888.
Murder and attempt at murder	21	18	34
Manslaughter	15	20	23
Shooting at or wounding with intent to do bodily harm	73	56	77
Assault	1,636	1,816	2,280
Rape and indecent assault on females ...	54	52	58
Unnatural offence, and assault with intent to commit	2	8	21
Minor offences against the person	114	113	129
Robbery with violence, burglary, etc. ...	187	262	352
Horse, sheep, and cattle stealing, etc. ...	173	158	167
Other offences against property	3,622	3,030	3,912
Forgery and offences against the currency ...	122	59	124
Drunkenness	11,825	12,408	18,526
Other offences against good order	5,978	7,417	9,922
Offences relating to carrying out laws ...	308	169	276
Smuggling and other offences against the revenue	68	63	121
Offences against public welfare	1,346	1,425	1,287
Total	25,544	27,074	37,309

Offences at
last period.

667. The causes in respect to which more arrests were made at the last period than at either of the former ones were murder and attempts to murder, manslaughter, shooting at or wounding with intent, assaults, rape and indecent assaults on females, unnatural offences, minor offences against the person, robbery with violence or burglary, miscellaneous offences against property, forgery, drunkenness, and other offences against good order; and smuggling and other offences against the revenue. But, for horse, sheep, and cattle

stealing, and offences relating to carrying out laws, there were fewer arrests at the last than at the first period, and for offences against public welfare than at either of the former periods. The most marked increase in 1888, as compared with previous periods, has occurred in the arrests for robbery and burglary, and for drunkenness, the former in that year being nearly twice as numerous and the latter half as numerous again as in 1883.

668. The number of arrests for drunkenness affords ample evidence that the efforts of those who are seeking to suppress or mitigate the evil are not uncalled for. In many cases, no doubt, the same individual was arrested over and over again; but, supposing each arrest had represented a distinct individual, there would have been taken into custody for drunkenness :—

In 1874, one person in every 71 living in Victoria.

„ 1875,	„	„	68	„	„
„ 1876,	„	„	69	„	„
„ 1877,	„	„	65	„	„
„ 1878,	„	„	69	„	„
„ 1879,	„	„	77	„	„
„ 1880,	„	„	85	„	„
„ 1881,	„	„	79	„	„
„ 1882,	„	„	76	„	„
„ 1883,	„	„	74	„	„
„ 1884,	„	„	73	„	„
„ 1885,	„	„	72	„	„
„ 1886,	„	„	68	„	„
„ 1887,	„	„	65	„	„
„ 1888,	„	„	57	„	„

669. It will be observed that in 1879, 1880, and 1881, embracing the year in which the colony was in a depressed condition, as already stated, and the two following years, drunkenness was less rife than at any preceding or subsequent period. Since 1880, however, as the colony became more prosperous, arrests for drunkenness, in proportion to the population, have been steadily increasing, and on this basis were a third more numerous in 1888 than in 1880.

670. Drunkenness, “other offences against property,” “other offences against good order,” and “offences against public welfare,” although they may, and probably do—especially the first named—lead to more serious offences, may be considered as being, in themselves, comparatively speaking, minor offences, hardly amounting to crimes. Arrests for these numbered 22,771 in 1878, 24,280 in 1883, and 33,647 in 1888; and to the whole number of arrests were in the proportion of 89 per cent. at the first period, and 90 per cent. at the two later periods. Thus only 11 per cent. of the arrests at the first

period, and 10 per cent. at the middle and last periods, were for crimes in the strict sense of the word.

Smuggling
and other
offences
against
revenue.

671. It is worthy of remark that, notwithstanding the inducement which high import duties might be supposed to offer to smugglers, offences against the revenue have never led to many arrests in Victoria. Only 121 persons were taken into custody for such offences in 1888, which, however, is larger than the number in 1883 or in 1878.

Age and
education
of arrested
persons.

672. The ages of those taken into custody in 1888, and the degree of instruction possessed by them, are shown in the following table:—

DEGREE OF INSTRUCTION AND AGE OF PERSONS* ARRESTED, 1888.

Ages.			Superior Instruction.	Read and Write well.	Read only or Read and Write imperfectly.	Unable to Read.	Total.
Under 10 years	...	...	...	3	80	354	437
10 " 15 "	...	...	...	26	454	85	565
15 " 20 "	...	...	6	282	2,073	120	2,481
20 " 25 "	...	...	9	651	4,823	250	5,733
25 " 30 "	...	...	27	720	4,793	310	5,850
30 " 40 "	...	...	60	1,019	6,705	512	8,296
40 " 50 "	...	...	35	673	5,100	605	6,413
50 " 60 "	...	...	32	380	3,562	515	4,489
60 years and upwards	...	...	16	213	2,370	440	3,039
Unspecified	...	...	...	2	4	...	6
Total	...	...	185	3,969	29,964	3,191	37,309

Education
of children
arrested.

673. The returns of those under 15 years of age taken in charge by the police embrace neglected and deserted children as well as criminals. The whole number in 1888, according to the table, was 1,002, and of these not one was possessed of superior instruction; only 29, or one in 35, could read and write well; and 439, or nearly half, were unable to read. The number of children under 15 committed for trial was 8; all were boys, seven of whom could read, and could also write more or less imperfectly, but not one was unable to read.

Education
of adults.

674. Those over 15 years arrested numbered 36,307, and of these, 4,125, or more than a ninth (including those possessed of superior instruction), could read and write well, whilst 2,752, or a thirteenth, could not read. Those over 15 years of age committed for trial numbered 865, of whom 222, or a little over a fourth, could read and write well, or were possessed of superior instruction, and 43, or a

* See paragraph 656 ante.

twentieth, were unable to read. According to these figures the persons charged with offences serious enough to call for their commitment for trial were somewhat better educated than the other arrested persons. Those arrested, whether committed for trial or otherwise dealt with, were on the average not nearly so well educated as the general population, for at the last census all over 15 years of age, except about a tenth, were returned as being able to read and write, and only an eighteenth were returned as entirely illiterate.

675. The following table shows the birthplaces and religions of the persons taken into custody and of those committed for trial in 1888, also the ratio of those of each country and sect to the estimated numbers of the same country and sect in the population:—

Birthplaces
and reli-
gions of
criminals.

**BIRTHPLACES AND RELIGIONS OF PERSONS * ARRESTED AND
COMMITTED FOR TRIAL, 1888.**

Birthplace and Religion.	Persons Arrested.		Persons Committed for Trial.	
	Number.	Proportion per 1,000 living.	Number.	Proportion per 1,000 living.†
BIRTHPLACE.				
Victoria	11,092	17·61	376	·60
Other Australasian colonies ‡	2,373	47·18	85	1·69
Australian Aborigines ...	50	...	1	...
England and Wales ...	8,420	48·27	184	1·05
Scotland	3,281	57·83	53	·93
Ireland	9,441	93·22	81	·80
China	179	14·59	4	·33
Other countries	2,473	66·04	89	2·38
Total	37,309	35·13	873	·82
RELIGION.				
Protestants	20,644	27·11	533	·70
Roman Catholics	15,598	62·28	296	1·18
Jews	133	24·95	17	3·19
Buddhists, Confucians, etc....	188	16·62	5	·44
Others	746	22·30	22	·66

676. Until the year under notice it has always been found that fewer Victorians have been arrested, and fewer committed for trial, in proportion to their numbers in the population, than persons of any other nationality. This, without doubt, has been mainly due to the fact of a very large proportion of children being embraced within their numbers; with the increasing ages of the Victorian-born population,

Relative
numbers of
each birth-
place.

* See paragraph 656 *ante*.

† The estimated population of each birthplace and religion with which these calculations have been made will be found in the tables following paragraphs 48 and 59 of Volume I.

‡ Exclusive of Aborigines.

however, the number of criminals is becoming larger, and in 1888, for the first time, one of the other nationalities, viz., the Chinese, showed a smaller proportion both of arrests and commitments. In 1878 only 4,790, and in 1883 no more than 6,893 persons of Victorian birth were taken into custody, whereas in the year under review the number had risen to 11,092, whilst the rate in proportion per 1,000 of the Victorian-born population rose from $10\frac{1}{3}$ in 1878 to 13 in 1883, and to $17\frac{2}{3}$ in 1888. Of places outside Victoria, the country which supplies the largest number of arrested persons is Ireland. In 1888, those arrested of this nationality exceeded the English and Welsh arrested by 1,021, and this although natives of England and Wales in the population out-numbered the Irish by about 73,000, or over 70 per cent. The offences with which the Irish were charged, however, could not have been of so serious a nature as those in respect to which the English and Welsh were arrested, as the number of the latter committed for trial was more numerous in proportion to the numbers in the population, than that of the former; the proportion of Scotch arrested was also above that of the English, but that of the Scotch committed for trial, whilst slightly above that of the Irish, was somewhat below that of the English. The proportion of Chinese arrested and the proportion committed for trial was below that of persons of any other nationality. Arrests and commitments of natives of other Australasian colonies were, in proportion to their numbers, much more numerous than those of Victoria.

Relative
numbers of
each
religion.

677. In proportion to their numbers in the community, the Roman Catholics supplied about two and a third times as many arrested persons as the Protestants or the Jews, and nearly four times as many as the Buddhists, Confucians, etc. In view of a similar proportion, the Roman Catholics committed for trial were more than half as numerous again as the Protestants, but two and three-quarter times less numerous than the Jews. It is, however, quite exceptional for so large a proportion of Jews to be committed for trial. A statement of the offences which formed the grounds for arrest will be found in the next table but one.

Religions of
persons
convicted
and
sentenced.

678. It is generally assumed that nearly every person sent to trial is guilty of the offence for which he was committed, and, although he may subsequently be acquitted, the probability is that a conviction would have been obtained if sufficient evidence had been available. On the other hand, it may be maintained that many of those discharged had been unjustly accused, and should not be classed as criminals. If the latter assumption be correct, it would appear by

the following table—which shows the number of the various religions tried and the number convicted together with the percentage of convictions obtained for different periods—that whilst in 1887 a somewhat larger proportion of Roman Catholics were unjustly committed than of Protestants, in 1888 the proportions were about equal; also that, over a series of years, a smaller proportion of Jews, but a larger proportion of Pagans, Buddhists, Confucians, etc., are unjustly accused than in the case of either Protestants or Roman Catholics. It should, however, be pointed out that the number of Jews and Pagans committed for trial was so small that any proportions based thereon are but of little value :—

RELIGIONS OF PERSONS* TRIED† AND CONVICTED, 1888.

Religions.	Number tried in 1888.†	Convictions in 1888.		Percentage in Year 1887.	Seven Years, 1880-1886.
		Total Number.	Percentage of Number Tried.		
Protestants ...	485	341	70·31	71·1	66·5
Roman Catholics	264	187	70·83	65·8	65·2
Jews ...	14	10	71·43	75·0	72·9
Buddhists, Confucians, etc.	7	5	71·43	70·0	59·3
Others ...	17	14	82·35	92·9	70·8
Total ...	787	557	70·78	69·7	66·2

679. The religions of the persons* taken into custody in 1888 are given in the following table in connexion with their offences :—

Causes of arrest, and religions.

CAUSES OF ARREST, AND RELIGIONS, 1888.

Offence.	Religions.					
	Protestants.	Roman Catholics.	Jews.	Buddhists, Confucians, etc.	Others.	Total.
Murder and attempt at murder	24	9	...	...	1	34
Manslaughter ...	13	8	1	...	1	23
Shooting at or wounding with intent to do bodily harm	45	26	...	2	4	77
Assault ...	1,182	1,017	8	27	46	2,280
Rape and indecent assault on females	33	23	...	...	2	58
Unnatural offence, and assault with intent to commit ...	15	5	1	...	...	21

* See paragraph (*) *ante*.

† Exclusive of those not prosecuted, who numbered 86 in 1888. The number "tried," moreover, differs from the number "committed for trial," since the former is inclusive of those awaiting trial at the beginning, but exclusive of those awaiting trial at the end of the year.

CAUSES OF ARRESTS, AND RELIGIONS, 1888—continued.

Offence.	Religions.					
	Protestants.	Roman Catholics.	Jews.	Buddhists, Confucians, etc.	Others.	Total.
Other offences against the person	83	38	2	2	4	129
Robbery with violence, burglary, etc.	180	150	7	...	15	352
Horse, sheep, and cattle stealing, etc.	102	59	...	5	1	167
Other offences against property	2,293	1,447	45	27	100	3,912
Forgery and offences against the currency	84	39	...	1	...	124
Drunkenness	10,162	8,013	24	16	311	18,526
Other offences against good order	5,395	4,223	34	82	188	9,922
Offences relating to the carrying out of laws	154	104	3	6	9	276
Smuggling and other offences against the revenue	45	50	2	17	7	121
Offences against public welfare	834	387	6	3	57	1,287
Total	20,644	15,598	133	188	746	37,309

Causes of arrest of each sect compared.

680. It will be observed that 24 Protestants, 9 Roman Catholics, and 1 of other beliefs were arrested for murder and attempt at murder; 58 Protestants, 34 Roman Catholics, 1 Jew, 2 Buddhists, etc., and 5 of other beliefs were arrested for manslaughter, shooting at, or seriously wounding; 48 Protestants and 28 Roman Catholics, 1 Jew, and 2 of other beliefs, were arrested for sexual offences. Over 10,000 Protestants, over 8,000 Roman Catholics, 24 Jews, 16 Buddhists, etc., and 311 of unspecified religions were arrested for drunkenness. Only one Jew was arrested during the year for homicide, and only one for a sexual offence.

Religions of drunkards.

681. Arrests for drunkenness and other offences against good order were in the proportion of 75 per cent. of the total arrests of Protestants, of 78 per cent. of those of Roman Catholics, of 44 per cent. of those of Jews, of 52 per cent. of those of Buddhists, Confucians, etc., and of 67 per cent. of those of persons of other beliefs. These proportions vary but little from year to year.

Occupations of persons arrested.

682. The next table shows the occupations of the males and females taken into custody in 1888:—

OCCUPATIONS OF MALES AND FEMALES* ARRESTED, 1888.

Occupations.	Males.	Females.
GOVERNMENT PROFESSIONS, ARTS, EDUCATION, LITERATURE.		
Government officer	13	...
Police, penal officer	5	...
Officer of local body	2	...
Army, navy—officer, man	29	...
Clergyman, etc.	3	...
Lawyer	39	...
Others connected with law	5	...
Medical man, student	25	...
Dentist	8	...
Chemist, druggist	60	...
Others connected with medicine	2	...
Author, editor, reporter	23	...
Bookseller, newsvendor	30	...
Printer	213	...
Science, connected with	29	...
Education, engaged in	27	3
Fine arts, engaged in	17	...
Photographer	10	...
Music, teacher of, musician	67	3
Theatres and exhibitions, connected with	82	1
BOARD AND LODGING, DOMESTIC DUTIES, ATTENDANCE.		
Hotelkeeper	48	3
Board and lodging, connected with	7	5
Domestic servant, cook	353	706
Hotel, boarding-house, etc., servant	94	9
Charitable institution, servant	1	...
Nurse (not servant) ... ..	...	12
Shoeblack	1	...
Opium shopkeeper	2	...
Attendance, engaged in	7	40
COMMERCIAL PURSUITS.		
Merchant	18	...
Auctioneer, etc.	7	...
Broker, agent, etc.	181	...
Commercial clerk, etc.	529	...
Commercial traveller, salesman	147	1
Other mercantile persons	29	1
Shopkeeper	63	...
Pawnbroker	2	...
Hawker, pedlar	543	5
Marine storekeeper	5	...
General dealer	334	2
CARRYING AND MESSAGES.		
Railway service	17	...
Omnibus, cab—driver, owner	300	...
Drayman, carter, carrier	542	...
Others connected with conveyance	6	...
Ship—owner, master, officer seaman (not navy)	1,105	...

* See paragraph 656 ante.

OCCUPATIONS OF MALES AND FEMALES* ARRESTED, 1888—*continued.*

Occupations.	Males.	Females.
CARRYING AND MESSAGES—<i>continued.</i>		
Ship—servant, steward, etc.	44	...
Boatman, waterman, etc.	6	...
Stevedore, or otherwise connected with ships	4	...
Messenger, porter, errand boy... ..	18	...
Telegraph service	7	...
AGRICULTURAL PURSUITS AND LAND.		
Farmer, market gardener, farm servant, labourer, etc. ...	835	...
Land, estate—agent, proprietor, etc.	2	...
Land surveyor and assistants	25	...
PASTORAL PURSUITS AND ANIMALS.		
Squatter, grazier, station servant, labourer, etc.	75	...
Others connected with land	8	...
Horse dealer, proprietor, etc.	7	...
Veterinary surgeon, farrier	22	...
Horse-breaker, groom, jockey	387	...
Live stock salesman	2	...
Animal dealer, keeper	2	...
Game, rabbit catcher	2	...
Fisherman	29	...
Drover and others engaged about animals	59	...
ARTIZANS, MECHANICS, LABOUREERS.		
Bookbinder	7	2
Musical instrument maker, dealer	14	...
Prints and pictures, connected with	5	...
Carving and figures, connected with	8	...
Tackle and sports, connected with	1	...
Designs and medals, connected with	1	...
Watch and clock maker, dealer	42	...
Philosophical instrument maker, dealer... ..	3	...
Gunsmith, etc.	3	...
Mechanical or undefined engineer	316	...
Toolmaker, cutler, etc.	26	...
Carriagemaker, wheelwright	58	...
Saddle, harness, and whipmaker, dealer	134	...
Shipwright, rigger, boatbuilder	22	...
Sailmaker, shipchandler, etc.	29	...
Builder, architect	100	...
Carpenter, joiner	940	...
Cooper, turner	72	...
Bricklayer, mason, plasterer, shingler, slater	845	...
Painter, paperhanger, plumber, etc.	476	...
Others connected with buildings	2	...
Cabinet, etc., maker, dealer	127	...
Undertaker	1	...
Chemicals, working or dealing in	8	...
Mechanic (undefined)	6	...
Labourer (undefined)	14,890	5

* See paragraph 656 *ante*.

OCCUPATIONS OF MALES AND FEMALES* ARRESTED, 1888—*continued.*

Occupations.	Males.	Females.
TEXTILE FABRICS AND DRESS.		
Textile fabrics, manufacturer of, weaver	33	...
Draper and assistants	85	1
Hairdresser, wigmaker, etc.	92	...
Hat and cap maker	33	...
Tailor, tailoress, dealer in clothing	249	41
Milliner, dressmaker ... ..	...	40
Clothing, manufacture, engaged in, machinist	2	26
Boot and shoe maker	770	...
Umbrella—maker, mender	10	...
Washerwoman, laundry man	1	14
FIBROUS MATERIALS.		
Rope, mat, sack, maker	9	...
Tent, tarpaulin, maker, canvas dealer	5	...
ANIMAL FOOD.		
Cowkeeper, dairyman, woman	33	...
Butcher, etc.	308	...
Poulterer, fishmonger	23	1
VEGETABLE FOOD.		
Miller, grain and flour dealer, and assistants	10	...
Baker, confectioner	308	1
Greengrocer, fruiterer	19	...
Others dealing in vegetable food	2	...
DRINKS AND STIMULANTS.		
Brewing, connected with	14	...
Distiller, rectifier	2	...
Gingerbeer and sodawater maker	15	...
Grocer and assistants	99	1
Tobacco manufacture, engaged in	33	5
Tobacconist	13	...
ANIMAL MATTERS.		
Soapboiler, candlemaker, tallowmelter	3	...
Tanner, fellmonger, currier	56	...
Leather articles, maker of	4	...
Brush, broom maker	14	...
Wool classer	26	...
Animal matters, working or dealing in	4	...
VEGETABLE MATTERS.		
Japanner, french polisher	57	...
Timber merchant and assistant	2	...
Firewood—dealer, chopper, splitter, fencer	45	...
Sawyer, sawmill owner, worker	39	...
Basketmaker	6	...
Hay, straw, chaff—dealer, cutter	1	...
Papermaker	1	...
Rag, bottle gatherer	30	...

* See paragraph 656 *ante.*

OCCUPATIONS OF MALES AND FEMALES* ARRESTED, 1888—*continued*.

Occupations.	Males.	Females.
VEGETABLE MATTERS— <i>continued</i> .		
Billsticker	1	...
Vegetable matters, others working or dealing in ...	3	1
MINING, ENGAGED IN		
Miners, etc.	882	...
COAL, STONE, CLAY, EARTHENWARE, GLASS.		
Coal and charcoal, working or dealing in	7	...
Chimney sweep	10	...
Quarryman, limeburner, etc.	62	...
Brickmaker, potter	105	...
Navvy	265	...
Nightman, scavenger	13	...
Earth, stone, glass, etc., others working or dealing in ...	19	...
MINERALS AND METALS.		
Goldsmith, silversmith, jeweller	33	...
Engine driver (undefined)	236	...
Ironfounder, blacksmith, locksmith	551	...
Ironmonger	20	...
Brassfounder, finisher, gasfitter	30	...
Other metals, working or dealing in	204	...
INDEFINITE AND NON-PRODUCTIVE.		
Manager, apprentice, etc.	2	1
Independent means	19	...
Pensioner, inmate of institution, etc.	11	1
Beggar, pauper, vagrant	1	...
Criminal, thief, pickpocket	5	...
Prostitute, brothel-keeper ... ..	...	1,624
Gambler, gaminghouse-keeper	6	...
No stated occupation, over 15 years of age	878	3,317
„ „ under „ „	700	218
Total	31,219	6,090

Chief occupations of persons arrested.

683. It will be observed that, of the males arrested, nearly half were labourers; and that of other occupations, those most frequently arrested were sailors, carpenters, miners, bricklayers, shoemakers, carters, clerks, and painters, in the order named. No occupation was returned in 1,578 cases, but of those 700 were youths or children, and of the others it is probable that most of them belonged to the criminal classes. Of the females arrested, more than a fourth were set down as prostitutes or brothel-keepers. About three-fifths, including 218 young girls, were of no specified occupation; and of the few returned as following regular occupations more than two-

* See paragraph 656 *ante*.

thirds were domestic servants, and the bulk of the remainder were dressmakers and tailoresses.

684. It has been already stated that, in making up the returns, a person arrested more than once is counted as a separate individual in respect to each arrest or charge,* but it is possible to ascertain approximately the actual numbers passing through the hands of the police by means of a close comparison of the names, ages, birthplaces, religions, occupations, residences, etc., of the individuals in question. This is too tedious and laborious—and consequently expensive—an investigation to be attempted every year, but it was done for 1884, so far as the sexes and birthplaces of the persons arrested are concerned, and the result is given in the following table:—

DISTINCT INDIVIDUALS ARRESTED, 1884.

Sex and Birthplace of Arrested Persons.	Number of Charges on which Arrests were made.	Number of Distinct Individuals Arrested.	Number of Charges on which Distinct Individuals were Arrested.																											
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	19	20	28									
SEX.																														
Males ..	21,908	16,229	12,822	2,231	698	238	110	52	33	15	11	4	3	2	1	3	2	1	..	2	1									
Females ..	5,595	3,623	2,682	518	191	118	38	34	13	13	9	2	2	..	2	2	1	2	1	..	..							
Total ..	27,503	19,857	15,504	2,749	889	356	148	86	46	28	20	6	5	2	3	5	3	3	1	2	1									
BIRTHPLACE.																														
Victoria ..	7,441	5,413	4,206	764	260	92	49	18	11	7	1	1	1	..	..	2	1	..	..	..	..					
Other Australasian Colonies ..	1,386	1,020	801	144	48	16	4	2	..	1	1	..	1	..	..	1	1	..	..	..	..					
England and Wales ..	6,726	4,951	3,951	640	197	72	37	23	14	6	3	1	..	1	1	1	1	1	..	2	..									
Scotland ..	2,607	1,833	1,460	274	82	40	10	6	1	2	4	1	1	..	1	1	..	..	..	..	..				
Ireland ..	7,538	5,180	3,931	752	250	119	46	32	20	10	10	3	1	1	1	..	..	2	1	..	1							
Other British possessions ..	153	113	84	24	3	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..
France ..	112	83	67	7	6	2	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Germany ..	326	277	240	30	4	2	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..
United States ..	363	266	209	36	13	5	..	1	..	1	1	..	..	..	..	..	..	..	..	..	..
China ..	195	169	152	10	5	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Countries and Unknown ..	656	502	403	68	21	5	1	3	..	..	..	..	1	..	..	..	..	..	..	..	..	

685. The total number of charges shown in the table (27,503) corresponds with the number of persons set down as arrested in the returns for 1884, but it is seen that only 19,857 were distinct individuals, or nearly a fourth less than that number. Of these, 15,504, or 78 per cent., were only arrested once; 2,749, or 14 per cent., were arrested or charged twice; 889, or 4 per cent., three times; 356, or 2 per cent., four times; and 359, or 2 per cent., more than four times; 2 having been arrested or charged as many as twenty, and 1 as many as twenty-eight times.

* See paragraph 656 ante.

Sexes of
those
arrested
more than
once.

686. It appears that the tendency of females to be arrested over and over again, or on several charges, is greater than that of males, for whereas, in 1884, only 21 per cent. of the males who fell into the hands of the police were apprehended more than once, or were charged with more than one offence, as many as 26 per cent. of the females who fell into the hands of the police were so apprehended or charged.

Countries
of those
arrested
more than
once.

687. Twenty-six per cent. of the natives of British possessions outside of the United Kingdom and the Australasian colonies were taken into custody or charged with an offence more than once during the year, as also were 24 per cent. of the Irish, 22 per cent. of the Victorians, the other Australians, and the Scotch, 21 per cent. of the Americans, 20 per cent. of the English, 19 per cent. of the French, 13 per cent. of the Germans, and 10 per cent. of the Chinese.

Individuals
arrested
more than
once for
drunken-
ness.

688. The distinct persons taken into custody for drunkenness during 1884 numbered 10,287, and of these, 1,520, or 15 per cent., were apprehended more than once, viz.:—994 twice, 288 thrice, 112 four times, 51 five times, 25 six times, 19 seven times, 11 eight times, 7 nine times, 1 ten times, 4 eleven times, 1 twelve times, 2 thirteen times, 1 fourteen times, 2 fifteen times, 1 twenty times, and 1 twenty-six times.

Drunkards
charged
with other
offences.

689. Whilst the number of individuals arrested for drunkenness was 10,287, the charges of drunkenness brought against them numbered 12,938; but these persons were charged with 2,622 other offences, so that the total number of charges of all kinds against drunkards was 15,560, as against 27,503 charges of all descriptions. Thus 57 per cent. of the offences for which persons were arrested, during 1884, were committed by persons who were arrested during the same year for drunkenness.

Results of
summary
disposal.

690. The results of summary disposal of cases by magistrates in the year 1888 were as follow:—

SUMMARY DISPOSAL BY MAGISTRATES OF ARRESTED PERSONS,*
1888.

Sentence.				Males.	Females.
Imprisonment for 2 years	...	...	...	18	...
„ 1 year and under 2 years	...	...	...	189	105
„ 6 months and under 1 year	...	...	...	280	128
„ 4 months	..	...	...	36	7
„ 3 months	...	...	...	946	403
„ 2 months and under 3 months	...	...	...	261	40

* See paragraph 656 ante.

SUMMARY DISPOSAL BY MAGISTRATES OF ARRESTED PERSONS,*
1888—continued.

Sentence.	Males.	Females.
Imprisonment for 1 month and under 2 months ..	1,270	388
„ 15 days and under 1 month ..	67	6
„ 8 days and under 15 days ..	761	175
„ 7 days and under ..	5,098	1,421
Fined ..	9,296	949
Ordered to find bail ...	285	32
Sent to lunatic asylum ...	281	139
Sent to industrial school or reformatory ...	376	146
Otherwise dealt with ...	196	8
Total sentenced ...	19,360	3,947
Discharged ...	11,063	2,066
Total summarily disposed of ...	30,423	6,013

691. Of the persons sentenced by magistrates during 1888, 48 per cent. of the males, and 24 per cent. of the females, were fined; 31 per cent. of the former, and 41 per cent. of the latter, were sentenced to imprisonment for various terms under a month, and 14 and 24 per cent., respectively, for periods varying from 1 to 12 months; about 1 per cent. of the males, and 3 per cent. of the females, were sentenced to 1 year's imprisonment or upwards; the balance, or 6 per cent. of the males and 8 per cent. of the females, were sent to Lunatic Asylums, Industrial and Reformatory Schools, ordered to find bail, or were otherwise disposed of. Sentences by magistrates.

692. Corporal punishment to males may be ordered by magistrates for certain offences. In such cases the offender, if an adult, may be sentenced to be whipped with a cat-o'-nine-tails once, twice, or thrice, at the discretion of the bench. Six offenders were so sentenced in 1888, one of whom was ordered to receive one whipping of twelve, and two were ordered to receive one whipping of fifteen lashes. The other three were each ordered to receive two whippings of fifteen lashes on each occasion. Whipping ordered by magistrates.

693. Under the *Juvenile Offenders Act* 1887,† magistrates are empowered to order youths under 16 years of age convicted of any offence punishable on summary conviction with imprisonment, to be privately whipped with a cane or birch rod by a constable, either in addition to, or in lieu of, any other punishment they may be lawfully sentenced to receive. Under this Statute fourteen boys were Punishment of juvenile offenders.

* See paragraph 656 ante.

† 51 Vict. No. 951, section 57.

whipped in 1888, of whom one received 5 strokes, five 10 strokes, three 12 strokes, three 15 strokes, and two 20 strokes, all with a cane. In six instances the offence was assault, in two instances an offence against property (undefined), and in one instance burglary.

Results of
commitments
for trial.

694. The results of the commitments for trial at the three periods already referred to were as follow:—

RESULTS OF COMMITMENTS FOR TRIAL,* 1878, 1883, AND 1888.

	1878.	1883.	1888.
Number for trial	700	593	873
Convicted and sentenced	458	350	557
Acquitted... ..	178	191	230
Not prosecuted	64	52	86

Proportion
of convictions
obtained.

695. Of those committed for trial, 636 were eventually tried in 1878, 541 in 1883, and 787 in 1888. At the first period 72 per cent., at the second period 65 per cent., and at the third period 71 per cent. of the trials resulted in convictions.

Sentences in
superior
courts.

696. The following are the sentences of the prisoners tried and convicted in superior courts during the year under review:—

SENTENCES OF PERSONS TRIED AND CONVICTED, 1888.

Sentence.	Males.	Females.
Death	7†	1
Hard labour on roads or public works for 15 years and upwards	4	...
" " " 10 years and under		
15 years ...	9	...
" " " 7 years and under		
10 years ...	9	1
" " " 4 years and under		
7 years ...	46	5
Imprisonment for 2 years and under 4 years	112	5
" 1 year and under 2 years	144	8
" 6 months and under 1 year	108	9
" 1 month and under 6 months	45	9
" under 1 month	14	4
Fined	2	...
Recognizances estreated	1	...
To find bail to appear when called upon	13	1
Total tried and convicted... ..	514	43

* Including those who were remaining for trial from the previous year, but excluding those awaiting trial at the end of the year.

† In the case of three of these, sentence of death was only recorded.

697. Of males convicted in superior courts, seven were sentenced to death—3 being cases in which death was merely “recorded”—in 1888; all the rest except 16 were sentenced to terms of imprisonment, with or without hard labour; of those imprisoned, about three-fifths were sentenced for periods of less than two years, and nearly one-seventh to more than four years. Of the females, 1 was sentenced to death, and 19 were sentenced to over one, and 22 to under one, year’s imprisonment. Thirteen males were sentenced to be imprisoned for a longer period than ten years. Six females were sentenced to a longer period than four years.

Lengths of sentences in superior courts.

698. In addition to terms of imprisonment named in the foregoing table, 62* persons were ordered to be kept in solitary confinement for periods varying from a few days to 1 month per annum during the sentence. Of these, 1 had been convicted of shooting at or wounding; 2 of manslaughter; 4 of assaults; 3 of rape or indecent assaults on females; 1 of an unnatural offence; 1 of bigamy; 27 of robbery under arms or burglary; 1 of sheep stealing, etc.; 16 of other offences against property; 5 of forgery, etc.; and 1 of offences against the carrying out of the laws.

Solitary confinement ordered by superior courts.

699. The total number of offenders sentenced by superior courts to be whipped was, in addition to terms of imprisonment in all cases, 10. Rape or indecent assaults on females were the crimes of three of these, for each of whom 2 whippings of 10 lashes each were ordered. Unnatural offence was the crime of three men, two of whom were sentenced to receive one whipping of 15 lashes, and the third one of 20 lashes. The remaining four offenders were convicted of robbery with violence, and were each ordered 3 whippings of 15 lashes. Judges of the Supreme Court and Courts of General Sessions can sentence males to receive corporal punishment, under Act 27 Vict. No. 233, for unnatural offences, attempts to choke in order to commit an offence, for robbery under arms, and, in the case of youths under sixteen, for several other offences; also, under Act 35 Vict. No. 399, for attempts to commit rape, or for rape itself where sentence of death is commuted. The greatest number of whippings an individual can be sentenced to receive for one offence is three, and the greatest number of lashes at each whipping is 50.

Whippings ordered by superior courts.

700. The number of individuals sentenced to corporal punishment in 1874 was 11, viz., 6 by magistrates and 5 by superior courts; the number in 1875 was 5, viz., 2 by magistrates and 3 by superior courts;

Whippings ordered 1874-1888.

* Exclusive of those ordered to be kept in separate confinement. See next paragraph.

the number in 1876 was 11, viz., 1 by magistrates and 10 by superior courts; the number in 1877 was 11, viz., 5 by magistrates and 6 by superior courts; the number in 1878 was 17, viz., 2 by magistrates and 15 by superior courts; the number in 1879 was 9, viz., 4 by magistrates and 5 by superior courts; the number in 1880 was 5, 17 in 1881, 8 in 1882—all by superior courts; the number in 1883 was 14, viz., 2 by magistrates and 12 by superior courts; the number in 1884 was 17, the number in 1885 was 6, and the number in 1886 was 11—all by superior courts; the number in 1887 was 10, viz., 4 by magistrates and 6 by superior courts; and the number in 1888 was 29, viz., 19 by magistrates and 10 by superior courts. The total number of whippings directed to be administered in the fifteen years was 254, of which 54* were ordered by magistrates and 200 by superior courts. The number of persons sentenced to be whipped in 1888 was thus much greater than in any other year since 1873.

Executions.

701. One criminal, a native of Scotland, and claiming to be a member of the Presbyterian Church, was executed in 1888, for murder. Since the first settlement of Port Phillip, 142 criminals have been executed within the colony, of whom only one was a female. No execution took place in 1887 or in 1882, 1878, 1874, 1850, 1849, 1846, 1845, 1844, 1843, or any year prior to 1842, but one or more executions took place in all the other years. The following table shows the birthplaces of the persons executed, the religions they professed, and the crimes they expiated on the scaffold:—

CRIMINALS EXECUTED, 1842 TO 1888.

Birthplace, Religion, and Offence.								Number.
Total number executed								142
Birthplace—Victoria								4
" Other Australian colonies								6
" England								59
" Wales								2
" Ireland								41
" Scotland								8
" Belgium								1
" France								1
" Switzerland								1
" Germany								1
" Sweden								1
" Sicily								1
" United States of America								5

* Including 14 cases of juvenile offenders.

CRIMINALS EXECUTED, 1842 TO 1888—*continued.*

Birthplace, Religion, and Offence.										Number.
Birthplace—West Indies										2
" China										8
" At sea										1
Religion—Church of England										32
" Presbyterian										6
" Wesleyan										8
" Baptist										1
" Lutheran										2
" Protestant undefined										30
" Roman Catholic										52
" Buddhist, Confucian, etc....										6
" No Religion										5*
Offence—Murder										106
" Attempt to murder... ..										17
" Rape										9
" Unnatural offence on a child										1
" Robbery with violence										9

702. It is stated† that from the accession of Queen Victoria to the period of Her Majesty's jubilee, 840 criminals were executed in the United Kingdom, or an average of 17 per annum. In 1837 there were no less than 13 crimes subject to capital punishment, and no fewer than 671 persons had been condemned to death in twelve months; but since the Queen's accession a more humane code has prevailed, and few have been executed, except for murder.

Executions
in United
Kingdom.

703. The offences in respect to which no persons were apprehended numbered 6,474 in 1888, or 254 more than in 1887, and, both in 1887 and 1888, were far more numerous than in any of the nine years ended with 1886. Whilst there was a marked decrease in the offences against the person, those against property showed a striking increase. The following are the undetected offences in the last eleven years:—

Undetected
crime.

UNDETECTED CRIME, 1878 TO 1888.

Year.	Number of Offences.			
	Against the Person.	Against Property.	Other Offences.	Total.
1878	496	4,011	385	4,892
1879	503	3,763	364	4,630
1880	613	3,935	350	4,898
1881	461	3,770	400	4,631

* Aborigines.

† See *Fifty Years of National Progress*, page 107.

UNDETECTED CRIME, 1878 TO 1888—continued.

Year.	Number of Offences.			
	Against the Person.	Against Property.	Other Offences.	Total.
1882	572	3,980	433	4,985
1883	596	4,209	584	5,389
1884	450	3,249	350	4,049
1885	491	3,000	388	3,879
1886	523	3,160	436	4,119
1887	211	5,593	416	6,220
1888	270	5,627	577	6,474

Offender perhaps arrested on other grounds.

704. With reference to the offences set down as undetected, it should be remarked that in all probability the malefactors do not in all such cases escape entirely. The returns are made up in the month of April of the year following that in which the offence is reported, and he who committed it may be arrested after that date, or may even before that date be arrested, and perhaps punished, for other misdeeds.

Crime in Australasian colonies.

705. The next four tables, giving details of crime in the various Australasian colonies, have been compiled in the office of the Government Statist, Melbourne, from their respective *Statistical Registers*. The first of these gives for each colony, and for the whole of Australasia, during each of the eleven years 1877 to 1887, a statement of the number of offences for which persons were apprehended or summoned, were summarily convicted or held to bail, were committed for trial, and were convicted after commitment. In the returns of the number of cases in respect to which persons were summoned, those so dealt with on account of matters coming under the head of civil jurisdiction are omitted in all the colonies:—

CRIME IN AUSTRALASIAN COLONIES, 1877 TO 1887.

Name of Colony.		Number of Offences for which Persons were—			
		Apprehended or Summoned.*	Summarily Convicted or held to Bail.	Committed for Trial.	Convicted after Commitment.
Victoria... ..	1877	45,844	29,528	594	340
	1878	44,742	29,452	658	458
	1879	43,936	28,266	628	397
	1880	41,778	26,950	680	398

* Not including civil cases.

CRIME IN AUSTRALASIAN COLONIES, 1877 TO 1887—*continued.*

Name of Colony.		Number of Offences for which Persons were—			
		Apprehended or Summoned.*	Summarily Convicted or held to Bail.	Committed for Trial.	Convicted after Commitment.
Victoria— <i>continued</i>	1881	44,730	29,131	591	332
	1882	47,234	31,542	616	402
	1883	48,974	33,480	606	350
	1884	51,397	34,456	695	407
	1885	52,566	34,180	768	444
	1886	54,361	36,599	756	492
	1887	59,036	38,742	820	506
New South Wales †	1877	47,739	33,003	1,517	829
	1878	53,325	37,924	1,803	959
	1879	53,870	38,828	1,743	1,090
	1880	57,784	42,205	1,717	1,148
	1881	66,600	51,130	1,626	1,058
	1882	65,936	50,126	1,724	1,065
	1883	72,231	55,463	1,606	1,008
	1884	75,680	57,897	1,550	928
	1885	77,092	59,345	1,540	785
	1886	81,503	62,268†	1,594	957
	1887	72,119	53,614	1,402	854
Queensland †	1877	9,929	6,444	312	177
	1878	9,563	6,153	344	197
	1879	9,058	5,762	377	185
	1880	9,133	6,051	316	170
	1881	10,063	7,253	264	126
	1882	11,649	8,025	308	144
	1883	13,804	9,788	427	193
	1884	15,518	11,620	555	274
	1885	15,763	11,451	538	267
	1886	17,640	12,841	611	289
	1887	16,769	12,449	480	247
South Australia ...	1877	10,314	8,696	240	156
	1878	13,682	11,685	369	229
	1879	12,843	10,970	384	223
	1880	15,063	12,814	353	199
	1881	15,347	13,258	342	213
	1882	14,672	12,634	339	211
	1883	13,104	11,378	305	166
	1884	11,988	10,425	293	127
	1885	10,406	8,901	240	133
	1886	8,202	6,850	228	121
	1887	7,122	6,032	208	102

* Not including civil cases.

† Cases brought up for lunacy are not included in the returns of New South Wales, Queensland, and Tasmania. In New South Wales, 532 lunatics in 1887, and 4,867 in the previous ten years; and in Queensland, 319 in 1887, and 3,672 during the previous ten years; and in Tasmania, 64 lunatics in 1887, and 183 in the previous three years, were admitted to asylums. Probably four-fifths of these were apprehended by the police.

‡ Figures amended since last publication.

CRIME IN AUSTRALASIAN COLONIES, 1877 TO 1887—*continued*.

Name of Colony.		Number of Offences for which Persons were—			
		Apprehended or Summoned.*	Summarily Convicted or held to Bail.	Committed for Trial.	Convicted after Commitment.
Western Australia ...	1877	6,855	5,272	83	27
	1878	6,126	4,552	102	45
	1879	6,471	4,853	85	53
	1880	5,577	4,221	50	25
	1881	5,460	4,134	109	61
	1882	5,089	3,683	90	46
	1883	4,739	3,450	72	46
	1884	4,831	3,477	64	40
	1885	4,900	3,436	86	51
	1886	5,703	3,980	95	54
	1887	5,363	3,562	121	75
Tasmania † ...	1877	6,606	5,140	102	49
	1878	6,644	5,131	113	54
	1879	7,184	5,641	110	67
	1880	6,903	5,418	117	73
	1881	6,229	4,799	90	51
	1882	7,615	5,942	93	36
	1883	8,039	5,394	88	33
	1884	6,273	4,843	70	39
	1885	5,983	4,876	71	31
	1886	6,586	5,253	76	46
	1887	5,932	4,806	89	56
New Zealand ‡ ...	1877	21,953	16,293	405	250
	1878	22,237	16,370	415	292
	1879	22,492	16,088	734§	296
	1880	21,181	15,025	592	370
	1881	19,796	14,079	474	235
	1882	22,659	16,573	467	219
	1883	23,090	16,944	459	231
	1884	23,572	17,968	509	241
	1885	23,103	17,804	428	236
	1886	21,662	16,705	536	286
	1887	20,336	15,557	646	334
Australasia ...	1877	149,240	104,376	3,253	1,828
	1878	156,319	111,267	3,804	2,234
	1879	155,854	110,408	4,061	2,311
	1880	157,424	112,684	3,825	2,383

* Not including civil cases.

† See footnote (†) preceding page. It is pointed out by Mr. R. M. Johnston, the Government Statistician of Tasmania, in his Report for 1886, page li, that, prior to 1884, a considerable proportion of purely civil cases, such as petty debts, non-payment of rates, etc., were improperly included in the returns of offences for which persons were apprehended or summoned in that colony.

‡ Maoris are included. In 1887 the number of cases in which they were concerned was 412—in 279 of which summary convictions were obtained, in 109 cases the prisoner was discharged, and in 24 cases committed for trial.

§ This large increase appears to have been owing to Maori disturbances, as 202 of that race were committed for trial in 1879, as against only 18 in the previous year.

CRIME IN AUSTRALASIAN COLONIES, 1877 TO 1887—*continued.*

Name of Colony.		Number of Offences for which Persons were—			
		Apprehended or Summoned.*	Summarily Convicted or held to Bail.	Committed for Trial.	Convicted after Commitment.
Australasia—continued	1881	168,225	123,784	3,496	2,076
	1882	174,854	128,525	3,637	2,123
	1883	183,981	135,897	3,563	2,027
	1884	189,259	140,686	3,736	2,056
	1885	189,813	139,993	3,671	1,947
	1886	195,657	144,496	3,896	2,245
	1887	186,677	134,762	3,766	2,174

706. By this table it would appear that crime is so much more prevalent in New South Wales than in Victoria that, notwithstanding the smaller population,† there has been, in every year, under all the heads, larger numbers in the former colony than in the latter. This is particularly observable in regard to serious offences, the commitments for trial and convictions thereafter being in New South Wales, as a rule, more than twice as numerous as in Victoria. In the former colony, however, offences of this character have not been so numerous during the last four years as formerly. In 1887 the apprehensions and summonses in New South Wales exceeded those in Victoria by 23 per cent., and the summary convictions by 39 per cent. It must, moreover, be remembered that the returns of the latter are swelled by the apprehensions of lunatics, whilst these are not included in the returns of the former.

Large amount of crime in New South Wales.

707. The position of the different colonies in respect to crime will be better ascertained by means of the next table, which shows the proportion that the number of apprehensions and summons cases,* of summary convictions, of commitments for trial, and of convictions after commitment, occurring in each colony during the last eleven years, bore to the average population of the same colony; also, the proportion in each colony of summary convictions to apprehensions and summons cases, and of convictions after commitment to commitments:—

Proportion of crime in each colony.

* Not including civil cases.

† Up to the last year named in the table, the estimated population of New South Wales was smaller than that of Victoria. The population of the former is now believed to be somewhat the larger.

PROPORTION OF ARRESTS, COMMITMENTS, AND CONVICTIONS IN
AUSTRALASIAN COLONIES TO POPULATION, ETC., 1877 TO 1887.

Name of Colony.		Proportion per 1,000 of the Population of—		Proportion per 10,000 of the Population of—		Proportion per Cent. of—		
		Apprehensions and Summons Cases.*	Summary Convictions	Commitments for Trial.	Convictions after Commitment.	Summary Con- victions to Ap- prehensions and Summons Cases.*	Convictions after Commitment to Commitments.	
Victoria	...	1877	56.69	36.52	7.35	4.20	64.40	57.24
		1878	54.47	35.85	8.01	5.58	65.82	69.60
		1879	52.68	33.89	7.53	4.76	64.33	63.22
		1880	49.13	31.69	8.00	4.68	64.51	58.53
		1881	51.48	33.52	6.80	3.82	65.13	56.18
		1882	53.05	35.43	6.92	4.52	66.78	65.26
		1883	53.76	36.75	6.65	3.84	68.36	57.76
		1884	55.03	36.89	7.44	4.36	67.04	58.56
		1885	54.84	35.66	8.01	4.63	65.02	57.81
		1886	55.08	37.08	7.66	4.98	67.34	65.08
		1887	57.90	37.99	8.04	4.96	65.63	61.71
New South Wales	...	1877	75.90	52.52	24.12	13.18	69.13	54.65
		1878	81.07	57.66	27.41	14.58	71.12	53.19
		1879	78.00	56.23	25.24	15.78	72.08	62.54
		1880	79.63	58.16	23.66	15.83	73.04	66.86
		1881	87.60	67.25	21.39	13.92	76.77	65.07
		1882	82.96	63.07	21.69	13.40	76.02	61.77
		1883	86.59	66.48	19.25	12.08	76.79	62.76
		1884	85.92	65.73	17.60	10.53	76.50	59.87
		1885	82.81	63.75	16.54	8.43	76.98	53.51
		1886	83.17	63.91	16.27	9.77	76.84	60.04
		1887	70.54	52.44	13.71	8.35	74.34	60.91
Queensland	...	1877	50.89	33.03	15.99	9.07	64.90	56.73
		1878	46.24	29.75	16.63	9.53	64.34	57.27
		1879	42.29	26.90	17.60	8.64	63.61	49.07
		1880	41.15	27.26	14.24	7.66	66.25	53.80
		1881	45.53	32.82	11.95	5.70	72.08	47.73
		1882	49.03	33.77	12.96	6.06	68.89	46.75
		1883	51.53	36.54	15.94	7.20	70.90	45.20
		1884	52.64	39.42	18.93	9.29	74.88	49.38
		1885	51.05	37.08	17.42	8.65	72.64	49.63
		1886	53.05	38.62	18.38	8.69	72.79	47.30
		1887	47.27	35.09	13.53	6.96	74.24	51.46
South Australia	...	1877	44.60	37.60	10.38	6.75	84.31	65.00
		1878	56.34	48.12	15.20	9.43	85.40	62.06
		1879	50.50	43.17	15.11	8.77	85.48	58.07
		1880	57.16	48.63	13.40	7.55	85.07	56.43
		1881	53.18	45.94	11.81	7.38	86.39	62.28
		1882	50.61	43.58	11.69	7.28	86.11	62.24
		1883	43.82	38.05	10.20	5.55	86.82	54.43
		1884	38.83	33.78	9.49	4.11	86.96	43.34
		1885	33.23	25.84	7.67	4.25	77.76	55.42
		1886	26.20	21.88	7.28	3.86	83.52	43.07
		1887	22.73	19.25	6.64	3.26	84.70	49.04

* Not including civil cases.

PROPORTION OF ARRESTS, ETC., 1877 TO 1887—*continued*.

Name of Colony.		Proportion per 1,000 of the Population of—		Proportion per 10,000 of the Population of—		Proportion per Cent. of—	
		Apprehensions and Summons Cases.*	Summary Convictions.	Commitments for Trial.	Convictions after Commitment.	Summary Con- victions to Ap- prehensions and Summons Cases.*	Convictions after Commitment to Commitments.
Western Australia ...	1877	248.55	191.16	30.09	9.79	76.90	32.53
	1878	218.77	162.56	36.43	16.07	74.31	44.11
	1879	227.72	170.78	29.91	18.65	75.00	62.35
	1880	193.35	146.34	17.33	8.67	75.69	50.00
	1881	182.93	138.50	36.52	20.44	75.71	55.96
	1882	167.46	121.19	29.62	15.14	72.37	51.11
	1883	151.73	110.46	23.05	14.72	72.80	63.89
	1884	149.43	107.55	19.80	12.37	71.97	62.50
	1885	143.81	100.85	25.27	14.97	70.12	59.30
	1886	153.37	107.04	25.55	14.52	69.80	56.84
	1887	128.61	85.42	29.02	17.99	66.42	62.00
Tasmania † ...	1877	62.15	48.37	9.60	4.61	79.97	48.04
	1878	61.22	47.28	10.41	4.98	79.00	47.78
	1879	64.60	50.73	9.89	6.02	81.08	60.91
	1880	60.80	47.69	10.30	6.43	80.19	62.40
	1881	53.11	40.91	7.67	4.35	78.64	56.67
	1882	63.09	49.23	7.70	2.98	78.73	38.71
	1883	64.65	43.37	7.08	2.65‡	80.80	37.50
	1884	48.86	37.72	5.45	3.04	77.20	55.71
	1885	45.27	36.89	5.37	2.35	81.50	43.66
	1886	48.60	38.77	5.61	3.39	79.91	60.53
	1887	42.42	34.37	6.36	4.00	81.02	62.92
New Zealand ...	1877	53.76	39.90	9.92	6.12	74.22	61.73
	1878	52.74	38.82	9.84	6.92	73.62	70.36
	1879	50.19	35.90	16.38§	6.61	71.53	40.33||
	1880	44.66	31.68	12.48	7.80	70.94	62.50
	1881	40.11	28.52	9.60	4.76	71.12	49.58
	1882	44.49	32.54	9.17	4.30	73.14	46.90
	1883	43.62	32.01	8.67	4.36	73.38	50.33
	1884	42.94	32.73	9.27	4.39	76.23	47.35
	1885	40.80	31.45	7.56	4.17	77.06	55.14
	1886	37.21	28.53	9.21	4.91	76.67	53.63
	1887	34.10	26.08	10.83	5.60	76.50	51.70
Total Australasia ...	1877	62.02	43.37	13.51	7.49	70.10	56.19
	1878	62.73	44.73	15.29	8.98	71.32	58.73
	1879	60.39	42.77	15.73	8.94	71.06	56.91
	1880	58.77	42.07	14.28	8.89	71.73	62.30

* Not including civil cases.

† See footnote (†) on page 344 *ante*.

‡ This small proportion is in consequence of the large number of cases not prosecuted.

§ See footnote (§) on page 344 *ante*.

|| This small proportion of convictions is owing to the fact that the Maoris committed for disturbances of a political nature were leniently dealt with.

PROPORTION OF ARRESTS, ETC., 1877 TO 1887—*continued.*

Name of Colony.		Proportion per 1,000 of the population of—		Proportion per 10,000 of the Population of—		Proportion per Cent. of—	
		Apprehensions and Summonses Cases.*	Summary Convictions.	Commitments for Trial.	Convictions after Commitment.	Summary Con- victions to Ap- prehensions and Summonses Cases.*	Convictions after Commitment to Commitments.
Total Australasia— <i>continued.</i>	1881	60·52	44·53	12·57	7·46	73·68	59·38
	1882	60·86	44·73	12·65	7·38	73·57	58·37
	1883	61·38	45·34	11·88	6·76	74·50	56·80
	1884	60·47	44·97	11·94	6·57	74·33	55·06
	1885	58·51	42·91	11·09	6·00	73·32	54·12
	1886	58·10	42·96	11·57	6·67	74·04	57·62
	1887	53·52	38·64	10·80	6·24	72·20	57·73

Order of
colonies in
respect to
apprehen-
sions, etc.

708. In regard to the proportion of offences for which apprehensions were made or summonses issued, Western Australia and New South Wales have stood at the head of the list throughout the eleven years named, and Tasmania stood next until 1884,† when Victoria and Queensland rose above that colony. New Zealand stood lowest on the list until 1884, since which year that place has been occupied by South Australia, the depression in which colony has been accompanied by a reduction in the amount of crime. The following is the order of the various colonies in this respect in 1887, the colony with the highest proportion of persons apprehended or summoned on criminal charges being placed first, and that with the lowest last:—

ORDER OF COLONIES IN REFERENCE TO NUMBERS APPREHENDED
OR SUMMONED IN PROPORTION TO POPULATION, 1887.

- | | |
|-----------------------|---------------------|
| 1. Western Australia. | 5. Tasmania. |
| 2. New South Wales. | 6. New Zealand. |
| 3. Victoria. | 7. South Australia. |
| 4. Queensland. | |

Order of
colonies in
respect to
summary
convictions

709. As regards the persons summarily convicted, in proportion to population, Western Australia and New South Wales have always been at the top of the list. In 1887 Victoria occupied the third place, having risen thereto from the fifth position, which it had occupied during several previous years. The following is the order in which the colonies stood in this particular, the colony with the highest proportion of summary convictions being placed first and the rest in succession:—

* Not including civil cases.

† It is stated that, prior to 1884, some petty debt cases were improperly included in the returns of offences for which persons were apprehended or summoned in Tasmania.

ORDER OF COLONIES IN REFERENCE TO SUMMARY CONVICTIONS IN PROPORTION TO POPULATION, 1887.

- | | |
|-----------------------|---------------------|
| 1. Western Australia. | 5. Tasmania. |
| 2. New South Wales. | 6. New Zealand. |
| 3. Victoria. | 7. South Australia. |
| 4. Queensland. | |

710. In every year prior to 1884 Victoria showed, relatively to population, a much smaller number of persons committed for trial than any other colony, but since then the proportion having fallen in some of the other colonies, in 1886 and 1887 it was higher in Victoria than in Tasmania or South Australia. Western Australia has been at the head of the list throughout the period, and New South Wales stood second until 1884, when, for the first time, Queensland rose above it. In 1887, however, New South Wales again rose to the second place. In respect to the proportion of commitments for trial to population, the colonies stood in the following order in 1887 :—

Order of colonies in respect to commitments for trial.

ORDER OF COLONIES IN REFERENCE TO NUMBERS COMMITTED FOR TRIAL IN PROPORTION TO POPULATION, 1887.

- | | |
|-----------------------|---------------------|
| 1. Western Australia. | 5. Victoria. |
| 2. New South Wales. | 6. South Australia. |
| 3. Queensland. | 7. Tasmania. |
| 4. New Zealand. | |

711. In respect to convictions in superior courts, Victoria, which formerly had—with the exception of Tasmania—the smallest number in proportion to population, occupied the fourth position in 1885 and 1886. In 1887, however, New Zealand rose above Victoria, and this colony consequently fell below all the others except South Australia and Tasmania. Western Australia, New South Wales, and Queensland were still at the top of the list, a position they had occupied during most of the last eleven years :—

Order of colonies in respect to convictions in superior courts.

ORDER OF COLONIES IN REFERENCE TO CONVICTIONS IN SUPERIOR COURTS IN PROPORTION TO POPULATION, 1887.

- | | |
|-----------------------|---------------------|
| 1. Western Australia. | 5. Victoria. |
| 2. New South Wales. | 6. Tasmania. |
| 3. Queensland. | 7. South Australia. |
| 4. New Zealand. | |

712. Either more persons are apprehended unjustly in Victoria than in the other colonies, or punishment for minor offences does not follow their commission with such certainty in the former as in the latter, since the number of summary convictions obtained in proportion to the apprehensions is lower in this colony than in any of the others. The following is the order of the colonies in respect to convictions of this kind in 1887, the colony in which the rate of summary

Order of colonies in respect to summary convictions obtained.

convictions to apprehensions is highest being placed first, and that in which it is lowest last :—

ORDER OF COLONIES IN REFERENCE TO PROPORTION OF SUMMARY
CONVICTIONS TO ARRESTS AND SUMMONSES, 1887.

- | | |
|---------------------|-----------------------|
| 1. South Australia. | 5. Queensland. |
| 2. Tasmania. | 6. Western Australia. |
| 3. New Zealand. | 7. Victoria. |
| 4. New South Wales. | |

Order of colonies in respect to convictions obtained in superior courts.

713. In regard to the proportion of convictions to commitments for trial, Victoria was third on the list in 1887, Western Australia and Tasmania being above her and New South Wales next below her. In the subjoined statement the colonies are placed in order, the one in which the convictions, in 1887, bore the highest proportion to commitment being placed first :—

ORDER OF COLONIES IN REFERENCE TO PROPORTION OF CONVICTIONS
IN SUPERIOR COURTS TO COMMITMENTS FOR TRIAL, 1887.

- | | |
|-----------------------|---------------------|
| 1. Tasmania. | 5. New Zealand. |
| 2. Western Australia. | 6. Queensland. |
| 3. Victoria. | 7. South Australia. |
| 4. New South Wales. | |

Incomplete returns in some colonies.

714. It is to be regretted that the information as to the offences for which persons are arrested or summoned is very incomplete in several of the colonies. In Queensland, the only specific offence mentioned in the returns is drunkenness, the balance being grouped as offences against the person, offences against property, or as other offences. This, except that drunkenness is not separated from "other offences," is likewise the grouping adopted in Western Australia, as also in Victoria in respect to the summons cases where the offender is never in custody of the police, the exact offence being entered only when an arrest takes place.

Arrests, etc., for various offences in Australasian colonies.

715. Notwithstanding New South Wales has hitherto possessed a smaller population than Victoria, arrests for most descriptions of offences have for years past been much more numerous in the former colony than in the latter. Thus, in 1887, arrests for homicide in New South Wales numbered 36 against 35 in Victoria; arrests for rape and other sexual offences numbered 138 against 59; arrests for other offences against the person numbered 8,729 against 3,923; arrests for horse, sheep, and cattle stealing, etc., numbered 307 against 131; arrests for miscellaneous offences against property numbered 7,410 against 4,468; arrests for drunkenness numbered 24,146* against

* Contrary to statements which have frequently appeared in the press of an adjacent colony, the law relating to drunkenness is the same in Victoria as in New South Wales. In both colonies a drunken person is liable to be arrested even although not guilty of disorderly conduct.

15,578. An exception occurred in the last three years in regard to arrests for robbery, burglary, etc., which in 1887 numbered 300 in New South Wales as against 421 in Victoria, also in the last year in regard to "other offences," which numbered 31,053 in New South Wales as against 34,421 in Victoria. The following table shows the offences for which apprehensions were made or summonses issued in the various Australasian colonies during the eleven years 1877 to 1887, so far as the information can be gathered from their respective *Statistical Registers* :—

APPREHENSIONS AND SUMMONSES FOR VARIOUS OFFENCES IN THE
AUSTRALASIAN COLONIES, 1877 TO 1887.

Colony.	Year.	Number of Arrests or Summonses for—							
		Murder, Attempts at Murder, and Manslaughter.	Rape, and other Offences against Females.	Other Offences against the Person.	Robbery with Violence, Burglary, etc.	Horse, Sheep, and Cattle Stealing, etc.	Other Offences against Property.	Drunkenness.*	Other Offences.
Victoria	1877	50	48	4,316	155	195	4,167	12,447	24,466
	1878	36	54	4,456	187	173	4,274	11,825	23,737
	1879	29	60	4,174	203	154	4,160	10,859	24,297
	1880	36	81	4,376	245	171	3,880	10,056	22,933
	1881	32	71	4,526	195	153	4,383	11,065	24,305
	1882	33	66	4,340	206	169	4,853	11,749	25,818
	1883	38	52	3,785	262	158	4,146	12,408	28,125
	1884	39	70	3,539	205	130	4,038	12,938	30,438
	1885	31	57	4,071	287	149	3,797	13,580	30,594
	1886	34	51	4,105	282	154	4,340	14,528	30,867
	1887	35	59	3,923	421	131	4,468	15,578	34,421
New South Wales	1877	8,539			6,130			16,696	16,374
	1878	9,398			6,807			17,224	19,896
	1879	63	85	9,102	266	472	6,126	17,713	20,043
	1880	75	95	9,364	245	469	6,154	18,777	22,605
	1881	68	104	9,031	231	465	6,237	22,560	27,904
	1882	54	110	9,080	274	529	6,643	22,280	26,966
	1883	76	109	10,484	203	348	6,343	23,178	31,490
	1884	98	119	9,842	263	482	6,415	25,428	33,033
	1885	50	115	9,353	230	403	6,576	27,493	32,872
	1886	73	163	9,899	261	307	6,787	27,722	36,291
	1887	36	138	8,729	300	307	7,410	24,146	31,053
Queensland	1877	1,550			1,201			3,019	4,159
	1878	1,273			1,191			3,215	3,884
	1879	1,238			1,175			2,997	3,648
	1880	1,320			1,186			2,867	3,760
	1881	1,304			1,146			3,275	4,338

* See footnote to preceding page.

APPREHENSIONS AND SUMMONSES FOR VARIOUS OFFENCES IN THE
AUSTRALASIAN COLONIES, 1877 TO 1887—*continued*.

Colony.	Year.	Number of Arrests or Summonses for—							
		Murder, Attempts at Murder, and Manslaughter.	Rape, and other Offences against Females.	Other Offences against the Person.	Robbery with Violence, Burglary, etc.	Horse, Sheep, and Cattle Stealing, etc.	Other Offences against Property.	Drunkenness.*	Other Offences.
Queensland — <i>continued</i>	1882	1,532			1,140			3,771	5,206
	1883	2,369			1,327			4,505	5,603
	1884	2,543			1,687			5,117	6,171
	1885	2,230			1,748			5,508	6,277
	1886	2,091			1,956			5,748	7,845
	1887	2,587			2,126			6,000	6,056
South Australia	1877	11	31	810	24	31	636	2,890	5,881
	1878	10	32	941	50	12	824	4,166	7,647
	1879	5	29	857	46	15	890	3,840	7,161
	1880	13	37	1,026	52	51	971	4,325	8,588
	1881	7	33	862	45	23	1,009	5,298	8,070
	1882	5	16	934	55	19	963	4,713	7,967
	1883	5	17	767	61	15	652	4,533	7,054
	1884	24	41	711	45	13	653	3,938	6,563
	1885	9	36	598	28	19	708	3,361	5,647
	1886	8	32	530	27	18	679	2,566	4,342
	1887	8	21	408	36	16	562	2,090	3,981
Western Australia	1877	470			493			5,892	
	1878	619			515			4,992	
	1879	462			387			5,622	
	1880	331			355			4,891	
	1881	418			354			4,688	
	1882	365			459			4,265	
	1883	455			372			3,912	
	1884	410			335			4,086	
	1885	403			323			4,174	
	1886	474			414			4,815	
	1887	472			532			4,359	
Tasmania †	1877	25	16	636	58	26	854	1,345	3,646
	1878	6	30	693	60	35	862	1,374	3,584
	1879	2	54	616	45	35	998	1,504	3,930
	1880	2	14	651	103	37	723	1,543	3,835
	1881	5	8	528	35	17	691	1,446	3,499
	1882	5	20	621	36	27	842	1,827	4,237
	1883	2	17	701	25	28	702	1,890	4,674
	1884	3	21	533	22	25	616	1,577	3,476
	1885	3	13	544	34	22	565	1,470	3,332
	1886	4	18	489	16	20	647	1,507	3,885
	1887	3	19	449	22	18	749	1,192	3,480

* See footnote on page 350 *ante*.† See footnote (†) on page 344 *ante*.

APPREHENSIONS AND SUMMONSES FOR VARIOUS OFFENCES IN THE
AUSTRALASIAN COLONIES, 1877 TO 1887—*continued*.

Colony.	Year.	Number of Arrests or Summonses for—							
		Murder, Attempts at Murder, and Manslaughter.	Rape, and other Offences against Females.	Other Offences against the Person.	Robbery with Violence, Burglary, etc.	Horse, Sheep, and Cattle Stealing, etc.	Other Offences against Property.	Drunkenness.*	Other Offences.
New Zealand ...	1877	18	41	1,899	66	61	1,855	7,429	10,564
	1878	16	43	1,890	38	44	1,684	7,105	11,417
	1879	14	51	1,869	100	67	2,563	6,672	11,156
	1880	29	56	1,909	99	65	2,272	6,371	10,380
	1881	13	59	1,937	73	85	2,146	5,770	9,713
	1882	10	47	1,920	93	62	2,226	6,996	11,305
	1883	16	46	1,605	71	50	2,358	7,494	11,450
	1884	25	35	1,652	102	66	2,270	7,154	12,268
	1885	21	30	1,734	94	60	2,044	7,012	12,108
	1886	23	49	1,545	122	86	2,185	6,297	11,355
	1887	17	43	1,600	179	54	2,304	5,661	10,478

716. Subjoined is a statement of the proportion of the various offences, grouped under four heads, to the population of each colony during the same eleven years:—

Ratio of
each group
of offences
to popula-
tion of each
colony.

PROPORTION OF VARIOUS OFFENCES TO POPULATION IN EACH
AUSTRALASIAN COLONY, 1877 TO 1887.

Colony.	Year.	Arrests or Summonses per 1,000 of the Population for—			
		Offences against the Person.	Offences against Property.	Drunken- ness.*	Other Offences.
Victoria ...	1877	5.46	5.59	15.39	30.26
	1878	5.53	5.64	14.40	28.90
	1879	5.11	5.42	13.02	29.13
	1880	5.28	5.05	11.83	26.97
	1881	5.33	5.44	12.73	27.97
	1882	4.99	5.87	13.20	29.00
	1883	4.25	5.01	13.62	30.87
	1884	3.91	4.68	13.85	32.59
	1885	4.34	4.42	14.17	31.92
	1886	4.24	4.84	14.72	32.28
	1887	3.94	4.92	15.28	33.75

* See footnote on page 350 *ante*.

PROPORTION OF VARIOUS OFFENCES TO POPULATION IN EACH
AUSTRALASIAN COLONY, 1877 TO 1887—*continued.*

Colony.	Year.	Arrests or Summonses per 1,000 of the Population for—			
		Offences against the Person.	Offences against Property.	Drunken- ness.*	Other Offences.
New South Wales ...	1877	13·58	9·75	26·55	26·03
	1878	14·29	10·35	26·18	30·25
	1879	13·40	9·94	25·65	29·02
	1880	13·14	9·46	25·88	31·15
	1881	12·10	9·12	29·67	36·70
	1882	11·63	9·37	28·03	33·93
	1883	12·79	8·26	27·78	37·74
	1884	11·42	8·13	28·87	37·50
	1885	10·22	7·74	29·53	35·31
	1886	10·34	7·51	28·29	37·03
	1887	8·71	7·84	23·62	30·37
Queensland ...	1877	7·94	6·16	15·47	21·32
	1878	6·16	5·76	15·55	18·78
	1879	5·78	5·49	13·99	17·03
	1880	5·95	5·34	12·92	16·94
	1881	5·90	5·19	14·82	19·63
	1882	6·45	4·80	15·87	21·91
	1883	8·84	4·95	16·81	20·92
	1884	8·63	5·72	17·36	20·94
	1885	7·22	5·66	17·84	20·33
	1886	6·29	5·88	17·29	23·59
	1887	7·29	5·99	16·91	17·07
South Australia ...	1877	3·68	2·99	12·50	25·43
	1878	4·05	3·65	17·16	31·49
	1879	3·54	3·74	15·11	28·14
	1880	4·08	4·08	16·41	32·59
	1881	3·12	3·66	18·36	27·97
	1882	3·29	3·58	16·26	27·48
	1883	2·64	2·44	15·16	23·59
	1884	2·51	2·30	12·76	21·26
	1885	2·10	2·41	10·73	18·03
	1886	1·82	2·31	8·20	13·87
	1887	1·39	1·96	6·67	12·70
Western Australia ...	1877	17·04	17·87	213·63	
	1878	22·13	18·39	178·27	
	1879	16·26	13·62	197·84	
	1880	11·48	12·31	169·57	
	1881	14·00	11·86	157·06	
	1882	12·01	15·10	140·34	
	1883	14·57	11·91	125·25	
	1884	12·68	10·36	126·39	
	1885	11·83	9·48	122·53	
	1886	12·75	11·13	129·49	
	1887	11·32	12·76	104·53	

* See footnote on page 350 *ante*.

PROPORTION OF VARIOUS OFFENCES TO POPULATION IN EACH
AUSTRALASIAN COLONY, 1877 TO 1887—*continued*.

Colony.	Year.	Arrests or Summonses per 1,000 of the Population for—			
		Offences against the Person.	Offences against Property.	Drunkenness.*	Other Offences.
Tasmania† ...	1877	6·37	8·82	12·65	34·31
	1878	6·72	9·00	12·66	33·02
	1879	6·04	9·69	13·52	35·35
	1880	5·87	7·60	13·58	33·75
	1881	4·61	6·33	12·32	29·83
	1882	5·35	7·50	15·14	35·10
	1883	5·79	6·07	15·20	37·59
	1884	4·34	5·16	12·28	27·08
	1885	4·24	4·70	11·12	25·21
	1886	3·77	5·04	11·12	28·67
	1887	3·37	5·64	8·53	24·88
New Zealand ...	1877	4·79	4·85	18·19	25·87
	1878	4·62	4·19	16·85	27·08
	1879	4·32	6·09	14·88	24·89
	1880	4·20	5·13	13·41	21·86
	1881	4·07	4·67	11·68	19·68
	1882	3·88	4·67	13·74	22·19
	1883	3·15	4·68	14·16	21·63
	1884	3·12	4·44	13·03	22·35
	1885	3·15	3·88	12·39	21·39
	1886	2·78	4·11	10·82	19·51
	1887	2·78	4·25	9·49	17·57

717. It will be observed that, according to population, arrests or summonses for offences against the person were, in all the years, much more numerous in Western Australia and New South Wales than in any other colony; in the former of which they were—in the year 1887—nearly three times, and in the latter two and a quarter times; as numerous as in Victoria. The following is the order of the colonies in this respect during 1887—which is the same as in the previous year—the colony in which the proportion was highest being placed first and that in which it was lowest last:—

Order of colonies as to offences against the person.

ORDER OF COLONIES IN REFERENCE TO ARRESTS OR SUMMONSES FOR
OFFENCES AGAINST THE PERSON, 1887.

1. Western Australia.
2. New South Wales.
3. Queensland.
4. Victoria.

5. Tasmania.
6. New Zealand.
7. South Australia.

718. In 1887, arrests for offences against property in Western Australia were more than two and a-half times, and in New South Wales more than one and a-half times, as numerous, in proportion to

Order of colonies as to offences against property.

* See footnote on page 350 *ante*.

† See footnote (†) on page 344 *ante*.

population, as they were in Victoria, where they were fewer than in any colonies except New Zealand and South Australia. In this respect, the order of the colonies was as follows, the colony with the largest proportion of such arrests being placed first, and the rest in succession :—

ORDER OF COLONIES IN REFERENCE TO ARRESTS OR SUMMONSES FOR OFFENCES AGAINST PROPERTY, 1887.

- | | |
|-----------------------|---------------------|
| 1. Western Australia. | 5. Victoria. |
| 2. New South Wales. | 6. New Zealand. |
| 3. Queensland. | 7. South Australia. |
| 4. Tasmania. | |

Order of colonies as to drunkenness.

719. In the matter of drunkenness, New South Wales far outstrips all the other colonies of the group in which the offence is distinguished*—the arrests for drunkenness there for several years past having been in proportion to population fully half as numerous again as in Victoria.† In the following list, wherein the colony in which the largest number of inebriates was brought before magistrates in 1887 is placed first, and that in which the number was smallest last, it will be observed that Victoria stands below New South Wales and Queensland, but above three of the other colonies:—

ORDER OF COLONIES IN REFERENCE TO APPREHENSIONS FOR DRUNKENNESS IN PROPORTION TO POPULATION, 1887.

- | | |
|---------------------|---------------------|
| 1. New South Wales. | 4. New Zealand. |
| 2. Queensland. | 5. Tasmania. |
| 3. Victoria. | 6. South Australia. |

Order of colonies as to "other offences."

720. "Other offences," which embrace breaches of corporation by-laws, *Wines and Spirit Statute*, etc., are rather violations of good order than actual crimes, and are consequently generally dealt with by summons. Relatively to population, they are usually most numerous in New South Wales, but in 1887 they were more numerous in Victoria than in any of the other colonies. In Western Australia drunkenness is included with these offences, and, consequently, the figures are not comparable with those of the other colonies. Omitting Western Australia, therefore, the following is the order of the colonies in respect to irregularities of this description, the colony in which the proportion was highest being placed first, and that in which it was lowest last:—

ORDER OF COLONIES IN REFERENCE TO ARRESTS OR SUMMONSES FOR "OTHER OFFENCES," 1887.

- | | |
|---------------------|---------------------|
| 1. Victoria. | 4. New Zealand. |
| 2. New South Wales. | 5. Queensland. |
| 3. Tasmania. | 6. South Australia. |

* The only colony in which drunkenness is not distinguished is Western Australia.

† Both in Victoria and New South Wales, a drunken person is liable to be arrested, even although not disorderly.

721. The statistics at hand relating to the United Kingdom give the commitments for trial and convictions in the superior courts, but do not afford any information respecting the cases dealt with in courts of petty sessions. The following table shows the number of commitments and convictions and their respective proportions to the population of each division of the United Kingdom, also the proportion of commitments to convictions during the eleven years ended with 1887:—

CRIME IN THE UNITED KINGDOM, 1877 TO 1887.

Colony.		Estimated Population.	Commit- ments for Trial.	Con- victions.	Proportion of—		
					Commit- ments to Population.	Convic- tions to Population.	Convic- tions to Commit- ments.
					per 10,000.	per 10,000.	per cent.
England and Wales	1877	24,547,309	15,890	11,942	6·47	4·86	75·15
	1878	24,854,397	16,372	12,473	6·59	5·02	76·18
	1879	25,165,336	16,388	12,525	6·51	4·98	76·43
	1880	25,480,161	14,770	11,214	5·80	4·40	75·92
	1881	26,055,406	14,786	11,353	5·67	4·36	76·78
	1882	26,406,820	15,260	11,699	5·78	4·43	76·66
	1883	26,770,744	14,659	11,347	5·49	4·24	77·41
	1884	27,132,449	14,407	11,134	5·31	4·10	77·28
	1885	27,499,041	13,586	10,500	4·94	3·82	77·28
	1886	27,870,586	13,974	10,686	5·01	3·83	76·47
	1887	28,247,151	13,292	10,338	4·71	3·66	77·78
Scotland	1877	3,560,715	2,684	2,009	7·54	5·64	74·85
	1878	3,593,929	2,922	2,273	8·13	6·32	77·79
	1879	3,627,453	2,700	2,091	7·44	5·76	77·44
	1880	3,661,292	2,583	2,046	7·05	5·59	79·21
	1881	3,744,323	2,444	1,832	6·53	4·89	74·96
	1882	3,785,400	2,469	1,943	6·52	5·13	78·70
	1883	3,825,744	2,563	1,914	6·70	5·00	74·68
	1884	3,866,521	2,610	2,085	6·72	5·37	79·88
	1885	3,907,736	2,537	1,956	6·49	5·01	77·10
	1886	3,949,393	2,437	1,838	6·19	4·65	75·20
	1887	3,991,499	2,319	1,809	5·81	4·53	78·01
Ireland	1877	5,338,906	3,870	2,300	7·25	4·31	59·49
	1878	5,351,060	4,183	2,293	7·82	4·28	54·81
	1879	5,362,337	4,363	2,207	8·14	4·12	50·58
	1880	5,327,099	4,716	2,383	8·85	4·47	50·53
	1881	5,129,950	5,311	2,698	10·35	5·26	50·80
	1882	5,097,730	4,301	2,255	8·44	4·42	52·43
	1883	5,015,328	3,025	1,740	6·03	3·46	57·52
	1884	4,962,693	2,925	1,546	5·89	3·12	52·85
	1885	4,924,342	2,850	1,573	5·79	3·19	55·19
	1886	4,889,430	3,028	1,619	6·19	3·31	53·47
	1887	4,837,352	2,694	1,411	5·57	2·92	52·38

CRIME IN THE UNITED KINGDOM, 1877 TO 1887—continued.

Colony.	Estimated Population.	Commit- ments for Trial.	Con- victions.	Proportion of—			
				Commit- ments to Population.	Convic- tions to Population.	Convic- tions to Commit- ments.	
				per 10,000.	per 10,000.	per cent.	
Total ...	1877	33,446,930	22,444	16,251	6·71	4·86	72·44
	1878	33,799,386	23,477	17,039	6·95	5·04	72·57
	1879	34,155,126	23,451	16,823	6·87	4·93	71·74
	1880	34,468,552	22,069	15,643	6·40	4·54	70·88
	1881	34,929,679	22,541	15,883	6·45	4·55	70·46
	1882	35,289,950	22,030	15,897	6·24	4·50	72·16
	1883	35,611,816	20,247	15,001	5·69	4·21	74·09
	1884	35,961,663	19,942	14,765	5·54	4·10	74·04
	1885	36,331,119	18,973	14,029	5·22	3·86	73·94
	1886	36,709,409	19,439	14,143	5·30	3·85	72·73
	1887	37,076,002	18,305	13,558	4·94	3·66	74·07

Crime in
United
Kingdom
and
Australasia
compared.

722. Taking the mean of the eleven years given in the table, it will be found that, in proportion to population, the commitments for trial in the United Kingdom, taken as a whole, are less than in Victoria, and considerably less than in any of the other Australasian colonies ; also, that the same holds good for England and Scotland, except that the proportion in Victoria is about equal to that in the latter ; but in Ireland the proportion has, on the whole, been slightly higher than in Victoria. Convictions after commitment are, relatively to population, generally as numerous in Victoria as in the United Kingdom or England and Wales, more numerous than in Ireland, but less than in Scotland.

Convictions
in United
Kingdom
and
Australasia
compared.

723. The convictions obtained in proportion to the commitments are, according to the figures, more numerous in England and Scotland than in any of the Australasian colonies, but the proportion in Ireland in 1886 was less than that in Victoria, New South Wales, Western Australia, and Tasmania during the same year.

Arrests for
drunken-
ness show
extent of
that vice.

724. In well-policed countries, such as are most, if not all, the Australasian colonies, where a drunken man showing himself in public is sure to be speedily apprehended, the arrests for drunkenness doubtless afford the most reliable indication of the extent to which that vice prevails.

Drink
consumed
not a true
index of
drunken-
ness.

725. Less valuable in this direction is the quantity of liquor consumed, as in some countries, where there is but little drunkenness, the consumption of intoxicants is high from the fact of wine or beer being the common drink at meal times, whilst in other countries,

where there is a vast amount of drunkenness, the consumption of intoxicants is comparatively low from the fact that the common beverage at meals is tea, coffee, or water. It is possible to conceive that in the former case the major portion of the community may be moderate drinkers, with but few total abstainers and few drunkards; whilst, in the latter case, with a fair proportion of moderate drinkers and some total abstainers, there may also be a considerable number of drunkards. It will, however, be interesting to compare countries in respect to the amount of strong drink they severally consume, and, in order to do this, after having found the quantity of malt liquor, wine, and spirits drunk in each country, it obviously becomes desirable to reduce these liquids to a common standard of strength; but here a difficulty presents itself, inasmuch as the potency of the different beverages varies greatly in different countries, the *vins ordinaires* of France and the pure natural wines of the Australian colonies not being nearly so strong as the highly fortified ports and sherries drunk in the United Kingdom, colonial beer also being much weaker than London or Dublin stout or than Scotch ale; whilst on the other hand, it may be assumed that the gin commonly retailed in England contains less alcohol than the whiskey and brandy drunk in Australia.

726. It has been laid down by authority* that a glass of gin (two and a-half ounces) is equal in alcoholic strength to a pint and a-half of English beer (thirty ounces), or to four glasses of sherry (ten ounces); whence it follows that one gallon of beer, one-third of a gallon of sherry, and one-twelfth of a gallon of gin are equivalent quantities.

Cassell's
standard.

727. The superior strength of the wines and beers consumed in some countries being set off against the superior strength of the spirits consumed in others, the reduction to a common standard of the quantity consumed per head, upon the principle just referred to may, perhaps, in the absence of accurate information, afford the basis for a tolerably fair comparison between the quantities of intoxicants consumed in the following countries. At any rate the comparison will not be greatly wrong so far as the Australasian colonies are concerned, as the beers, wines, and spirits consumed in the different colonies vary but little in character and strength. The equivalent in beer of the different drinks consumed is given in the last column, and the countries are arranged in order according to the numbers in this column:—

Consump-
tion of
drink in
various
countries.

* See *Cassell's Family Physician*, volume IV., page 936. It is there stated that beer contains from 5 to 6 per cent. of alcohol; sherry from 14 to 16 per cent.; wines generally from 8 to 19 per cent., although some contain as little as 6 per cent.; and others as much as 25 per cent.; brandy and whiskey contain from 50 to 60 per cent., and rum from 60 to 77 per cent.

CONSUMPTION OF ALCOHOLIC DRINKS IN VARIOUS COUNTRIES.

Countries.	Average Annual Consumption per Head.			
	Beer.	Wine.	Spirits.	Equivalent in Beer.*
	Gallons.	Gallons.	Gallons.	Gallons.
France	4·53	16·52	·85	64·29
Denmark ... ..	...	...	4·48	53·76†
Holland	19·05	·49	2·08	45·48
United Kingdom	28·74	·43	·59	37·11
New South Wales	16·70	·74	1·39	35·60
Germany	19·38	1·32	·95	34·74
Queensland	9·55	·69	1·85	33·82
Victoria	16·41	1·01	1·12	32·88
Austria-Hungary	6·83	4·84	·63	28·91
South Australia	14·37	1·59	·80	28·74
United States	10·74	·37	1·34	27·93
Switzerland	8·15	2·11	1·04	26·96
New Zealand	9·31	·27	·92	21·16
Tasmania	10·00	·24	·69	19·00
Sweden	2·52	·20	1·27	18·36
Canada	2·98	·12	·99	15·22

NOTE.—The averages for the Australasian colonies have been calculated over a period of three years, those for the other countries extend over various periods.

Consumption of drink in various countries compared.

728. The fallacy involved in considering the average consumption of alcoholic drink to be a measure of the drunkenness prevailing in a community is strikingly shown by the figures in the last column, as, by these, France would appear to be the most drunken country in the world, the consumption of intoxicants being nearly twice as great there as in Victoria, and more than three times as great as in New Zealand or Tasmania, and yet it is questionable whether France is not less inebriate than any of these colonies. France is almost certainly less inebriate than Holland, where, according to the figures, the consumption is less than in France by nearly a third. Taking the figures for what they may be worth, however, Victoria stands below New South Wales or Queensland, the annual consumption per head, reduced to its equivalent in beer, being $2\frac{3}{4}$ gallons less than that of the former, and about a gallon less than that of the latter. On the other hand, Victoria appears to consume per head 4 gallons more than South Australia, nearly 12 gallons more than New Zealand, and nearly 14 gallons more than Tasmania. It is known there are no

* The figures in this column are based on the assumption that one gallon of beer, one-third of a gallon of wine, and one-twelfth of a gallon of spirits are equivalent quantities. Those disagreeing with this assumption have it in their power, by means of the proportions given in the three preceding columns, to calculate the equivalents upon any principle they may deem more correct.

† No figures are available respecting the beer and wine drunk in Denmark. These figures, therefore, represent the equivalent of the spirits alone.

distilleries in the former colony,* but it is possible there may be some in the latter, although no mention of them is made in the published statistics. If it should turn out that spirits are made in Tasmania, the figures relating thereto would obviously understate the truth.

729. Turning to the earlier columns, it will be noticed that, according to population, most beer is consumed in the United Kingdom, most wine in France, and most spirits in Denmark;† also that, in point of consumption of spirits, Holland comes next to Denmark, next to which comes Queensland, then New South Wales, then the United States, then Sweden, and then Victoria. The small quantities set down for Tasmania raise doubts as to the accuracy of the figures, as has been already stated. The same may be said of Canada, and, perhaps, New Zealand.

Countries consuming most beer, wine, and spirits.

730. It should be mentioned that the quantities of each kind of drink consumed in the Australasian colonies have been obtained by taking the excess, during the three years ended with 1886, of imports over exports of wine, beer, and spirits, and adding thereto the quantities returned as having been made in the colony during the same three years.

Mode of obtaining Australasian drink returns.

731. A phase of crime, respecting which it is difficult to obtain accurate information, is female prostitution. Mr. H. M. Chomley, the Chief Commissioner of the Victorian police, however, by means of the force at his disposal and by correspondence with the police authorities of the neighbouring colonies, about six years since obtained some figures relating to the prostitution existing in Melbourne, Sydney, Brisbane, and Adelaide, which will be found in the following table :—

Prostitution in Australian capitals

PROSTITUTION IN AUSTRALIAN CAPITALS.

Capital Cities.	Population (Census of 1881).	Number of Prostitutes, 1883.	Prostitutes per 10,000 of Population.
Melbourne	282,947	597	21·10
Sydney	224,211	613	27·34
Brisbane	31,109	99	31·82
Adelaide	67,954	500	73·58

732. According to the figures in the last column, Melbourne was much freer from prostitution than any one of the metropolitan cities

Results compared.

* There are now no distilleries in New Zealand, those formerly in existence having been bought up and closed by the Government in 1874.
† No information is available as to the quantity of beer and wine consumed in Denmark.

named. It will be observed that even in actual numbers the prostitutes in Melbourne were fewer than in Sydney, although the latter has the smaller population. An enormous amount of prostitution appears to exist in Adelaide, but the figures being given in round numbers must be regarded with suspicion.

Prostitutes
in Mel-
bourne,
1889.

733. From an estimate made in 1889, upon which Mr. Chomley states considerable care was expended, the number of prostitutes in Melbourne and suburbs was 629. At the same time the population amounted to 438,000, so that the proportion of prostitutes per 10,000 of the population appears to have fallen from 21 in 1883 to only 14 in the present year.

Police in
Austral-
asian
colonies.

734. The Victorian police force is an admirably organized body of men, and, although smaller in numbers than the police force of New South Wales by 39, smaller also in proportion to population than the police force of either that colony or Queensland, their efficiency, combined with the orderly character of the population, is such that serious offences, as has been already shown,* are usually much less rife in Victoria than in most of the other colonies. The following figures show the number of police and their proportion to the population in each colony:—

POLICE IN AUSTRALASIAN COLONIES, 1889.†

1. South Australia	has	391	police, or 1 to	814	persons.
2. Victoria	„	1,452	„ „	751	„
3. New South Wales	„	1,491	„ „	725	„
4. Queensland	„	935	„ „	414	„

Police in
Australian
capitals.

735. Mr. Chomley supplies the following figures to show the number of persons one policeman keeps in order and protects in each of the four Australian capitals named:—

POLICE IN AUSTRALIAN CAPITAL CITIES, 1889.

1. Sydney	has	514	police, or 1 to	696	persons.
2. Melbourne	„	659	„ „	637	„
3. Brisbane	„	156	„ „	550	„
4. Adelaide	„	217	„ „	531	„

Supreme
Court
criminal
sittings.

736. The number of criminal cases tried in the Supreme Court at the various places throughout the colony where sittings were held in 1888 was 428, of which 372 were for felony, and 56 for misdemeanors. The convictions for felony numbered 264, and for misdemeanors 44. The number of places where sittings were held was 18, the number of sittings was 65, and the total duration of sittings was 177 days.

* See paragraph 710 *ante*.

† In 1883, the New Zealand police numbered 741, or 1 to every 783 persons living. No later returns are at hand respecting that colony.

737. Sittings may be held at the same number of places to try civil cases, but no causes were entered at 7 out of the 18 places in 1888. The number of causes entered for trial during the year was 375; but the number of causes tried was only 158, of which 46 were tried by juries of six, 19 by juries of twelve, and 93 by a judge alone. All of these were defended. The damages laid in the declarations amounted in the aggregate to £257,070. Verdicts were returned in 150 instances, and no nonsuits. Of the verdicts, 109, or about 73 per cent., were for the plaintiff. The aggregate amount awarded by the juries was £33,636, or 13 per cent. of the damages laid. In the ten years ended with 1887, the damages sued for in these or similar courts amounted to £2,396,940, and the sums awarded by juries to £404,192, or to about 17 per cent. of the damages sued for.

Supreme
Court civil
sittings.

738. Courts of General Sessions have jurisdiction in criminal cases within certain limitations, and have also appellate jurisdiction in civil cases from petty sessions. The places at which such courts were held in 1888 numbered 29, and the number of courts held 76, extending over periods amounting in the aggregate to 119 days. The number of cases tried was 321, in 239 of which, or 74 per cent., convictions were obtained. The number of appeals heard was 84. In the ten years prior to 1888, 2,539 cases were tried in Courts of General Sessions, and 1,687 convictions were obtained; thus the latter were to the former in the proportion of 66 per cent.

Courts of
General
Sessions.

739. County Courts have jurisdiction in civil cases up to £250. The number of places at which they were held in 1888 was 63, and the number of courts held was 201, extending over 440 days. The total number of cases tried was 7,711, the amount sued for was £239,106, and the amount recovered £89,363, or only 37 per cent. of the amount sued for. The costs awarded to the plaintiff amounted to £11,292, and the costs awarded to the defendant to £5,969. During the ten years prior to the year under review the aggregate amount sued for in County Courts was £2,863,257, and the aggregate amount awarded was £876,497, or 31 per cent. of the amount sued for.

County
Courts.

740. Courts of Mines have jurisdiction concerning all questions or disputes which may arise out of mining on Crown lands. The places at which they were held in 1888 numbered 11, and the courts held numbered 30, occupying 9 days. The total number of suits was 4, and the aggregate amount or value of demand, £1,430. The amount of costs awarded to the plaintiffs was *nil*, and to the defendants £30. These figures do not include all the mining disputes which took place during the year, as those of minor importance are adjudicated on by

Courts of
Mines.

the wardens of the gold-fields. In the ten years prior to 1888, the value sued for in Courts of Mines amounted in the aggregate to £19,930. The business has fallen off very considerably for several years past.

Courts of
Petty Ses-
sions :
criminal
cases.

741. The cases of indictable offences heard at Petty Sessions during 1888 numbered 2,186, which resulted in 927 commitments for trial. Commitments were thus obtained in 42 per cent. of the cases. The offences summarily dealt with numbered 58,090, in 40,127 of which, or 69 per cent., the offender was convicted.

Courts of
Petty Ses-
sions : civil
cases.

742. Courts of Petty Sessions have jurisdiction in ordinary civil cases up to £50,* and in master and servant cases also up to £50. Such courts were held at 232 places during the year. The civil cases heard numbered 19,885, in which the total amount of debts or damages claimed was £114,816, and the total amount awarded was £77,374, or 67 per cent. of the amount claimed. In the ten years ended with 1887, the debts or damages claimed in these courts amounted in all to £852,167, and the sums awarded to £533,366, or to 63 per cent. of the amounts claimed.

Debts sued
for and
awarded.

743. The net results of the civil cases tried in 1888 may be gathered from the following table, which shows the total amount of debts and damages sued for in the various courts, and the aggregate value of the awards, also the percentage of the latter to the former, in 1888 and the previous decennium. It will be noticed that the whole amount at stake was £611,000, and that rather less than a third was recovered ; also that whilst the proportion recovered in the Supreme Court appears to have been considerably less,* that in the County Courts and Courts of Petty Sessions was somewhat above the average :—

DEBTS AND DAMAGES CLAIMED AND AWARDED.†

Name of Court.	Amount of Debts and Damages, 1888.		Proportion of Debts and Damages recovered.	
	Claimed.	Awarded.	1888.	Average of Previous 10 Years.
	£	£	Per cent.	Per cent.
Supreme Court	257,070	33,636	13	17
County Courts	239,106	89,363	37	31
Courts of Petty Sessions ...	114,816	77,374	67	63
Total	610,992	200,373	33	30

* Increased from £20 by the *Justices of the Peace Act* 1887.
† The amounts claimed and awarded, especially in the Supreme Court, are not strictly comparable, for whereas the amount claimed is set down for every case entered whether tried or not, the amount awarded obviously only applies to cases actually tried. In the Supreme Court, only about two-thirds of the cases entered are actually tried, whereas in 1888 only a little more than half were tried during the year.

744. The number of writs issued in 1888, in the six bailiwicks into which the colony is divided, was 1,326, or 304 fewer than in the previous year. Of the whole number 10 were Queen's writs against both person and property, 33 were subjects' writs against the person alone, and 1,283 were subjects' writs against property alone.

745. In 1888, as is shown in the following table, the insolvencies in all the Australasian colonies numbered 2,638, and the total deficiency, according to the insolvents' schedules, amounted to £744,000.* It will be observed that the insolvencies in New South Wales exceeded those in Victoria by 372, and the deficiency in the former exceeded that in the latter by £38,000 :—

INSOLVENCIES IN AUSTRALASIAN COLONIES, 1888.

Colony.	Number of Insolvencies	As shown by the Insolvents' Schedules.		
		Liabilities.	Assets.	Deficiency.
		£	£	£
Victoria ...	479	347,658	185,871	161,787
New South Wales ...	851	659,307	459,677	199,630
Queensland ...	249	258,884	122,464	136,420
South Australia ...	98	80,092	58,011	22,081
Western Australia ...	27	...	...	...
Total Australia ...	1,704	1,345,941	826,023	519,918
Tasmania ...	90	44,887	13,641	31,246
New Zealand ...	844	445,061	252,322	192,739
Total Australasia ...	2,638	1,835,889	1,091,986	743,903

746. Places for the reception of prisoners in Victoria are of three kinds: ordinary gaols, police gaols, and penal establishments. The ordinary gaols and the penal establishments are houses of correction. The police gaols are used for the detention of prisoners sentenced to short periods of imprisonment, or awaiting trial or transfer to some other gaol or penal establishment, or to a lunatic asylum.

747. In accordance with recommendations made by the Inspector-General of Penal Establishments, the probation system for first offenders was introduced into Victoria by the passing of the *Juvenile Offenders Act* 1887 (51 Vict. No. 951), which came into operation on 1st January, 1888. This Act gives power to a judge or chairman of the court before which, or any two or more justices before whom the conviction has taken place, in the case of persons under the age of 21 years not previously convicted, to suspend the execution of sentences

* See also paragraphs 645 to 652 ante.

for any term of imprisonment not exceeding three years for any offence, whether indictable or punishable by summary conviction, and to release the offender from custody upon entering into recognizances, to be settled by the court, for his future good behaviour. Moreover, in the case of prisoners undergoing sentence, who had not been previously convicted and received sentence when under the age of 25 years, the Governor in Council is empowered to extend mercy to such offenders by releasing them from custody upon entering into like recognizances. In both cases, however, a prisoner so released is liable to be re-arrested for misbehaviour, and committed to prison to undergo his sentence or the residue thereof. Under the provisions of this Act, 16 male prisoners were released on probation in 1888.

Gaols and prisoners.

748. The gross, distinct, and average number of prisoners detained in each description of prison during 1888 will be found in the following table, males and females being distinguished :—

GAOLS AND PENAL ESTABLISHMENTS, 1888.

Description of Prison.	Number of Institutions.	Prisoners detained during the Year.								
		Gross Number.*			Distinct Individuals.†			Average at one time.		
		M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Gaols ...	9	7,637	2,470	10,107	} 7,897	1,648	9,545	{ 703	332	1,035
Penal establishments	1	1,146	...	1,146				{ 587	...	587
Police gaols ...	8	626	48	674	498	28	526‡	11	1	12
Total ...	18	9,409	2,518	11,927	8,395	1,676	10,071	1,301	333	1,634

Increase of distinct prisoners.

749. According to this table, the number of individual prisoners detained during the whole or some portion of 1888 in the gaols and penal establishments of the colony was 10,071, viz., 8,395 males and 1,676 females. In the previous year, the number of distinct prisoners was 10,359, viz., 8,428 males and 1,931 females; thus showing a decrease of 288 during the year under review, viz., 33 in the male, and of 255 in the female prisoners.

Proportion of distinct prisoners to population.

750. Comparing the figures for 1888 with those showing the mean population of that year, it appears that 1 person in every 105 persons in the colony, or 1 male in every 67 males, and 1 female in every 296 females, passed some portion of the year in prison; whereas the

* Exclusive of prisoners transferred from one institution to another. The numbers here given represent imprisonments, each person being counted afresh every time imprisoned.
† See table following paragraph 753 *post*.
‡ Estimated.

proportion in 1887 was 1 person in every 98 persons in the colony, or 1 male in every 64 males, and 1 female in every 248 females. In these estimates no account is taken of persons lodged temporarily in watch-houses, etc., pending examination before magistrates, the prisoners here referred to being only those detained in regular gaols or penal establishments.

751. If a comparison be made between the gross number of prisoners (exclusive of transfers) and the distinct prisoners, it will be found that 84·44 per cent. of the prisoners dealt with in 1888—viz., 89·22 per cent. in the case of males, and 66·56 per cent. in the case of females—were distinct individuals. In the previous year the proportions were:—Total, 86·08 per cent.; males, 90·91 per cent; females, 69·90 per cent.

752. If the figures in the table showing the average number of prisoners are compared with the mean population, it follows that 1 person in every 650 persons living was constantly in prison during 1888; or, distinguishing the sexes, that, during that year, 1 male in every 434 males living, and 1 female in every 1,493 females living were constantly in detention. By the following table, which gives the figures for the last eleven years, it will be seen that the proportion of prisoners to the population has fallen from 1 in every 549 in 1878, to 1 in every 650 in 1888, the latter proportion, however, being somewhat higher than that prevailing in 1885 and 1886:—

PROPORTION OF PRISONERS TO POPULATION, 1878 TO 1888.

Year.	Of the Total Population one Person was constantly in Prison to every—		
	Males.	Females.	Both Sexes.
1878	356	1,397	549
1879	351	1,267	534
1880	348	1,274	532
1881	353	1,349	543
1882	391	1,416	596
1883	429	1,346	633
1884	446	1,347	650
1885	466	1,357	670
1886	444	1,380	653
1887	429	1,360	632
1888	434	1,493	650

753. In the Inspector General's annual reports a return appears showing the number of times each individual was imprisoned during the year. The following are the particulars for 1888*, also the proportions per cent.:—

* See Inspector General's Report for 1888, page 15.

DISTINCT PRISONERS, 1888.
(Exclusive of those in Police Gaols.)

Number of Times Imprisoned during Year.	Distinct Prisoners, 1888.					
	Number.			Percentage.		
	Males.	Females.	Total.	Males.	Females.	Total.
Once	5,671	1,026	6,697	71·81	62·26	70·16
Twice	880	248	1,128	11·14	15·05	11·82
Three times	213	101	314	2·70	6·12	3·29
Four times	74	53	127	·94	3·22	1·33
Five times	24	16	40	·30	·97	·42
Six times and upwards	8	18	26*	·10	1·09	·27
Total received	6,870	1,462	8,332	86·99	88·71	87·29
In detention at commencement of year †	1,027	186	1,213	13·01	11·29	12·71
Grand Total	7,897	1,648	9,545	100·00	100·00	100·00

Persons imprisoned more than once.

754. Adding the numbers at the commencement of the year to those in the first line of the table, it is found that 83 per cent. of the distinct prisoners in 1888 were imprisoned only once during the year, and consequently 17 per cent. were imprisoned more than once. In the case of males, the proportions were 85 and 15 per cent.; and in the case of females, 74 and 26 per cent. respectively. The tendency of females to be imprisoned over and over again is greater than that of males; thus, during the year, over 11 per cent. of the whole number of females were imprisoned three times or upwards, and over 5 per cent. four times or upwards; whereas only 4 per cent. of the males were imprisoned more than twice, and only 1¼ per cent. more than three times.

Prisoners previously convicted.

755. Out of a total of 1,684 prisoners in detention on the 31st December, 1888, 976, or about 58 per cent., had been previously imprisoned under sentence in the colony—viz., 237, or 14 per cent., once; 146, or 9 per cent., twice; 93, or 5 per cent., three times; and as many as 500, or 30 per cent., four times or oftener. Of the total number, 43 had also been convicted in other countries, including 3 in other colonies, and 21 in the United Kingdom.

Grounds of imprisonment.

756. The following is a classification of the prisoners in confinement at the end of 1888, according to the grounds in respect to which

* One male and four females admitted seven times. Two females admitted eight, and two nine times.

† Exclusive of those discharged and re-admitted during the year, who numbered 334, viz., 236 males, and 148 females, they being included with the figures in the previous line.

they were detained. It will be noticed that 102 were untried; also that more than half the males, but only a sixth of the females, had been convicted of felony :—

GROUNDS FOR DETENTION OF PRISONERS, 1888.

Grounds for Detention.	Gaols.		Police Gaols.		Penal Establishments.	Total.		
	Males.	Females.	Males.	Females.	Males.	Males.	Females.	Total.
Felony, tried... ..	236	54	1	...	464	701	54	755
„ untried	46	2	1	...	...	47	2	49
Misdemeanors, tried ...	294	174	11	...	84	389	174	563
„ untried	32	3	...	...	...	32	3	35
Other offences, tried ...	124	91	1	...	62	187	91	278
„ untried	14	4	...	...	...	14	4	18
Total	746	328	14	...	610	1,370	328	1,698

757. The total number of prisoners (exclusive of transfers) admitted in 1888, to ordinary gaols and penal establishments, was 9,656, and of these, 479, viz., 378 males and 101 females, were imprisoned on charges of vagrancy, but really for medical attention, and 751, viz., 298 males and 453 females, were received for shelter. There were thus 1,230 persons, as against 1,358 in 1887, who were admitted on account of their destitute condition, and went to swell the ranks of the prison population, instead of being otherwise provided for as objects of charity. If these destitute prisoners be deducted from the total number of admissions, the balance, viz., 8,426, as compared with 8,526 in 1887, will more correctly represent the criminal admissions during the year.*

Destitution
a cause of
imprison-
ment.

758. The cases in which prisoners were absent from work during the year on account of sickness, which numbered 2,870,† were in the proportion of 1 case to every 3·5 individual prisoners. The daily average number of prisoners incapacitated from labour by reason of sickness was 121, or 1 in every 10 of the average number constantly employed. The total number of cases of sickness at any one time was 157.

Sickness in
prisons.

759. Sixty-three deaths from natural causes occurred in prison during 1887, and 67 deaths in 1888. These deaths were in the proportion of 1 to every 164 in the former year, and 1 to every 150 in the latter year, of the estimated individual prisoners; or in the proportion of 1 to every 25 in the former year, and 1 to every 24 in

Deaths in
prisons.

* See Inspector-General's Report, page 9.

† The cases of sickness in gaols numbered 3,631. See Part "Vital Statistics," paragraph 329, ante.

the latter year, of the daily average number of prisoners detained The death-rate was thus somewhat higher in the year under review than in the previous one.

Prisoners
absconding.

760. In the last three years no permanently successful attempt to escape from prison has taken place. In the first of those years one prisoner escaped from the custody of the police whilst being transferred, but was retaken, and two others made unsuccessful attempts to escape from prison; in 1887, one prisoner absconded, viz., from the Portland gaol, and was recaptured during the year; and in 1888 no instance is reported of any prisoner having attempted to escape from custody.

Prisoners
under life
sentences.

761. Of prisoners who had been sentenced to imprisonment for life, there have been 36 altogether in the colony, and of these, 18 have been discharged under the operation of regulations in force since February 1878 as to prisoners under commuted sentences to terms of life, 1 by special commutation, 1 to a lunatic asylum, and 2 by death; whilst 14—viz., 10 males and 4 females—still remain in custody.

Ages of
prisoners.

762. An abstract of the estimated population, at various ages, of the average number of prisoners at the same ages, and the proportion of the latter to the former, will be found in the following table:—

AGES OF PRISONERS, 1888.

Ages.	Estimated Population.	Average number of Prisoners constantly detained.	Prisoners per 10,000 of the Population.
Under 20 years	480,087	140	2·92
20 to 30 „	229,980	591	25·70
30 „ 40 „	118,221	362	30·62
40 „ 50 „	88,366	241	27·27
50 „ 60 „	86,098	163	18·93
60 years and upwards	59,298	137	23·10
Total	1,062,050	1,634	15·39

Proportion
of prisoners
at various
ages.

763. It appears from this table that, in 1888, the proportion of prisoners constantly detained to the population was greatest between the ages of 20 and 50. Of persons over 20 living in Victoria, 1 in every 390; of those between 20 and 40, 1 in every 365; of those over 40, 1 in every 432; and of those over 60, 1 in every 433, were constantly in prison throughout the year.

764. The birthplaces and religions of the prisoners constantly detained during the year, deduced from the total numbers of each nationality and religion returned as passing through the institutions, also the estimated totals of the same nationality and religion, are compared in the following table:—

Birthplaces and religions of prisoners.

BIRTHPLACES AND RELIGIONS OF PRISONERS, 1888.

Native Country and Religion.	Estimated Population.	Average number of Prisoners constantly detained.	Prisoners per 10,000 of the Population.
NATIVE COUNTRY.			
Australasian Colonies ...	679,865	697	10·25
England and Wales ...	174,451	371	21·27
Scotland ...	56,738	107	18·86
Ireland ...	101,277	331	32·68
China ...	12,270	16	13·04
Other countries ...	37,449	112	...
Total ...	1,062,050	1,634	15·39
RELIGION.			
Protestants ...	761,520	918	12·05
Roman Catholics ...	250,440	682	27·23
Jews ...	5,331	8	15·01
Buddhists, Confucians, etc.	11,310	14	12·38
Others ...	33,449	12	...

765. It will be observed that, in view of their respective numbers in the population, natives of the Australasian colonies contributed much less than their share to the number of inmates of prisons; but the natives of Scotland contributed 22 per cent. more, natives of England and Wales 38 per cent more, and natives of Ireland 112 per cent. more, than their share to that number; whilst the proportion of Chinese was smaller than that of any other nationality except the Australians. Also that of the religious denominations shown, Protestants contributed much less, and Jews slightly less, than their share; but Roman Catholics 77 per cent. more than their share to the number of such inmates.

Relative numbers of each country and sect.

766. According to the following figures which show the state of education of prisoners at various periods since 1873, the proportion

Education of prisoners.

of those able to read and write has considerably increased, and the proportion of the entirely illiterate has largely diminished of late years :—

EDUCATION OF PRISONERS, 1873 TO 1888.

Period.	Numbers in every 100—		
	Able to Read and Write.	Able to Read only.	Unable to Read.
1873 to 1876	64	18	18
1877 to 1880	74	8	18
1881 to 1883	83	6	11
1884 to 1886	84	6	10
1887	84	4	12
1888	87	4	9

Gaol punish-
ments.

767. The following cases of punishment for offences committed within the prison took place in 1888. It will be observed that solitary confinement, which is said to be more dreaded by prisoners than any other punishment, was prescribed in more than half the cases. The “other punishments” include “separate confinement,” which is gradually taking the place of solitary confinement; but do not include whipping, as corporal punishment is not administered in Victoria for any breach of prison regulations :—

PUNISHMENTS FOR OFFENCES WITHIN PRISONS, 1888.

Nature of Punishment.	Gaols.			Penal Establish- ment.	Total.		
	Males.	Females.	Total.	Males.	Males.	Females.	Total.
Hard labour	6	2	8	18	24	2	26
Solitary confinement ...	246	136	382	436	682	136	818
Other punishments	87	40	127	473	560	40	600
Total	339	178	517	927	1,266	178	1,444

Proportion
of prisoners
punished.

768. The punishments for offences within the prison, as detailed in the last table, were in the proportion of 1 to every 7 individual prisoners, 1 punishment of a male to every 7 individual male prisoners, 1 punishment of a female to every 9 individual female prisoners. According to the daily average number of prisoners, there was not quite 1 punishment to every prisoner; or very nearly 1 punishment to every male, and about 1 punishment to every 2 females.

Trades of
prisoners.

769. Of the prisoners discharged in 1888, 214 were mechanics or skilled workmen, and of these 71 were set down as having a thorough,

and 143 only an imperfect knowledge of their trade. As many as 153, or 71 per cent., had acquired such knowledge as they possessed during the term of their imprisonment. The following is a statement of the handicrafts followed, and of the number of prisoners who pursued each handicraft whilst under detention :—

MECHANICS AND SKILLED WORKMEN DISCHARGED FROM
PRISON IN 1888.

Trades.				Knowledge of Trade on Discharge.				Total.
				Good.		Imperfect.		
				Learnt Outside.	Learnt in Prison.	Learnt Outside.	Learnt in Prison.	
Bakers	...	...	1	...	...	3	4
Blacksmiths and moulders	...	...	2	1	...	3	6
Bookbinders	...	...	...	1	...	1	2
Carpenters and turners	...	...	3	...	2	1	6
Hat and bag makers	...	...	...	5	...	41	46
Matting and mat makers	...	...	1	...	...	16	17
Masons and bricklayers	...	...	1	...	...	1	2
Painters	...	...	6	...	3	2	11
Printers	...	...	1	1	...	7	9
Shoemakers	...	...	5	16	14	19	54
Stonecutters	...	...	1	...	...	3	4
Tailors	...	...	2	8	6	9	25
Tanners	...	...	1	...	...	3	4
Tinsmiths and plumbers	...	...	2	3	...	3	8
Weavers	...	...	10	...	...	6	16
Total	...	...	36	35	25	118	214

770. In the following statement of the cost* and earnings of prisoners in detention during the year 1888, the value of prison labour—so far as it was utilized for prison requirements—is added to the cost, as well as accounted for in the earnings of prisoners:—

COST OF PRISONERS.*

Salaries and wages	£38,656	0	0
Contingencies	27,229	0	0
Extra guard for municipal and other bodies ...	212	0	0
Value of prison labour utilized in making up clothing, materials, implements, and other gaol requirements	32,691	0	0
Total cost	£98,788	0	0

* Including the cost of the head office, but exclusive of any allowance for cost of prisoners in Police Gaols, for interest on the cost of gaol buildings, or for such repairs to gaol buildings as were effected by the Public Works Department.

EARNINGS OF PRISONERS.

Work for other departments, municipalities, etc.—Paid					
for in cash*...	...	...	...	...	£6,971 0 0
Value of time not paid for	...	...	...	...	2,201 0 0
Value of work in connexion with gaol buildings	...	...	...	...	5,375 0 0
Manufacture of clothing, implements, etc., for gaol	...	...	...	...	11,092 0 0
purposes	...	...	...	...	16,224 0 0
Other gaol requirements	...	...	...	...	£41,863 0 0
Total earnings					

Cost and earnings per head.

771. The gross cost of prisoners in 1888 (£98,788) was in the proportion of £60 18s. per head of the average number of prisoners detained (1,622). The difference between the gross cost and the earnings of prisoners, i.e., the net cost, was £66,097, or £40 15s. per head. The earnings of prisoners in the year (£41,863) amounted to £35 1s. 10d. per head of the average number of prisoners employed (viz., 1,193), which is equivalent to 2s. 3d. per head per diem for the 308 working days the year contained.

Prisoners in Victoria and New South Wales.

772. By the following comparative statement of the number of prisoners detained in the gaols and penal establishments of Victoria and New South Wales at the end of each of the six years ended with 1888, it appears that in proportion to the population the average number of prisoners in the mother colony exceeds that in Victoria by over 60 per cent. :—

PRISONERS IN VICTORIA AND NEW SOUTH WALES,
1883 TO 1888.

Year.		On the 31st December.					
		Estimated Population.		Number of Prisoners.		Prisoners per 10,000 of the Population.	
		Victoria.	New South Wales.	Victoria.	New South Wales.	Victoria.	New South Wales.
1883	...	921,743	857,744	1,442	2,168	15·64	25·28
1884	...	946,045	903,958	1,428	2,464	15·09	27·26
1885	...	971,145	957,914	1,444	2,559	14·87	26·71
1886	...	1,003,043	1,001,966	1,550	2,501	15·45	24·96
1887	...	1,036,119	1,042,919	1,608	2,380	15·52	22·82
1888	...	1,090,869	1,085,740	1,698	2,353	15·57	21·68
Means	...	994,827	975,040	1,528	2,404	15·35	24·65

* This was the amount paid into the Treasury.

773. The following table shows the total amounts and the amounts per head expended in connexion with the police and the penal establishments and gaols of Victoria during the 24½ years ended with 1888-9. The cost of buildings is not included:—

EXPENDITURE ON POLICE, GAOLS, ETC., 1865 TO 1888-9.

Year.	Amount Expended* on—			Amount per head of Population.	
	Police. .	Gaols and Penal Establishments.	Total.		
	£	£	£	s.	d.
1865	187,962	62,629	250,591	8	2
1866	194,189	72,522	266,711	8	6
1867	138,226	52,972	191,198	5	11
1868	201,000	71,285	272,285	8	2
1869	157,563	50,913	208,476	6	1
1870	198,027	56,503	254,530	7	2
1871 (six months) ...	95,363	27,101	122,464	3	4
1871-2	190,711	57,855	248,566	6	8
1872-3	187,101	56,017	243,118	6	5
1873-4	194,329	61,787	256,116	6	8
1874-5	198,312	60,469	258,781	6	7
1875-6	199,738	61,051	260,789	6	7
1876-7	197,371	60,008	257,379	6	5
1877-8	207,119	58,132	265,251	6	6
1878-9	209,041	58,442	267,483	6	5
1879-80	233,732	56,636	290,368	6	11
1880-81	207,674	53,565	261,239	6	1
1881-2	201,063	53,032	254,095	5	9
1882-3	204,561	57,128	261,689	5	9
1883-4	216,973	55,836	272,809	5	10
1884-5	217,684	57,311	274,995	5	9
1885-6	224,237	60,644	284,881	5	9
1886-7	233,173	59,894	293,067	5	10
1887-8	240,840	65,385	306,225	5	11
1888-9	261,329	66,128	327,457	6	1
Total	4,997,318	1,453,245	6,450,563	6	4

774. By the figures in the last column it will be observed that the police and gaols expenditure ranged from 8s. 6d. per head in 1866 to about 5s. 9d. in the five years 1881-2 to 1885-6. In 1888-9 it was 6s. 1d., or 3d. more than the average during the previous 8 years.

775. The inquests held in 1888 numbered 1,669, as against 1,674 in 1887. In 769 instances the death was found to have resulted from disease or natural causes; in 28 cases, from intemperance; in 854 cases, from violence; in 14 cases, from doubtful causes; and in 4 cases a verdict of "still-born" was returned. Of the deaths set down to

* Exclusive of the cost of buildings, which in 1887-8 amounted to £33,417, and in 1888-9 to £35,453.

violence, the verdict in 593 cases was to the effect that the death had resulted from accident; in 22, from homicide; in 149, from suicide; 1 from execution; and in 89 that the cause of the violent death was doubtful. The practice of holding inquests in cases of other than violent deaths was not so common in 1888 as in any of the previous ten years. In 1878, the proportion which verdicts of "death from disease or natural causes" bore to the total number of verdicts given was 52 per cent.; in 1879, 50 per cent.; in 1880, 52 per cent.; in 1881, 51 per cent.; in 1882, 53 per cent.; in 1883, 49 per cent.; and in 1884 and 1885, 55 per cent.; in 1886, 51 per cent.; in 1887, 49 per cent.; and in 1888, 46 per cent. Inquests in cases of death occurring under suspicious circumstances are held at the discretion of the coroner of the district within which the death takes place, subject to instructions issued by the Governor in Council under the 3rd section of the *Coroners Statute* 1865 (28 Vict. No. 253).

Fire
inquests.

776. No fire inquest was held in 1888, but 5 such inquests were held in 1887, 4 in 1886, 9 in both 1885 and 1884, 4 in 1883, and 5 in 1882. Under the *Amending Coroners Statute* (33 Vict. No. 338), which came into operation on the 19th August, 1869, fire inquests may be held at the request of any individual who lodges with his application a fee of £5 5s., or in pursuance of Ministerial authority, which is only given when circumstances appear sufficiently suspicious to warrant action being taken.

PART VIII.—SOCIAL CONDITION.

777. It was provided by the *Constitution Act* that, for the advancement of the Christian religion in Victoria, the sum of £50,000 should be set apart each year from the general revenue to promote the erection of buildings for public worship and the maintenance of ministers of religion, which sum should be apportioned to each denomination according to the number of its members at the preceding census. This provision was, however, repealed by an Act (34 Vict. No. 391) which came into operation on the 31st December, 1875. Since that date no further State assistance to religion has been given.

Abolition of State aid to religion.

778. Great difficulty exists in obtaining accurate statistics from several of the religious bodies. In the instances referred to, the returns are not furnished until after repeated applications, and even then they are often forwarded in so manifestly incorrect a condition that it is necessary to send them back for correction, frequently more than once. It is surprising that a matter which must be of interest to every member of these denominations should not receive more attention at the hands of their clergy or other recognised heads.

Difficulty in obtaining statistics of religious bodies.

779. The following table contains a statement of the number of clergy in 1888, and the approximate number of religious services performed in connexion with each denomination during the last two years:—

Clergy and services.

CLERGY AND SERVICES PERFORMED.*

Religious Denominations.	Number of Clergy, Ministers, etc., 1888.	Approximate Number of Services Performed.		
		1887.	1888.	Increase (+) Decrease (-)
Church of England	205	48,415	48,983	+ 568
Presbyterians	216	45,084	54,081	+ 8,997
Methodists	218	104,374	107,805	+ 3,431
Bible Christians	41	10,870	10,870	...

* The information in this and the next two tables was obtained from the heads or clergy of the different denominations. In most cases where blanks occur in the column for increase or decrease, no returns have been received for 1888, and the figures for the previous year have been repeated.

CLERGY AND SERVICES PERFORMED *—continued.

Religious Denominations.	Number of Clergy, Ministers, etc., 1888.	Approximate Number of Services Performed.		
		1887.	1888.	Increase (+) Decrease (-)
Independents... ..	57	14,000†	20,800	+ 6,800
Baptists	56	9,544	10,879	+ 1,335
Evangelical Lutherans...	14	2,756	2,916	+ 160
Welsh Calvinists	9	1,166	1,050	- 116
Church of Christ	22	6,800	7,200	+ 400
Society of Friends	2	344	344	...
Moravians	3	1,360	1,350	- 10
Protestants unattached ...	13	2,320	2,183	- 137
Roman Catholics	145	74,205	76,606	+ 2,401
Unitarians	1	105	104	- 1
Swedenborgians	1	136	134	- 2
Catholic Apostolic	15	1,232	1,271	+ 39
Christian Israelites	1	157	157	...
Seventh Day Adventists ...	4	450	676	+ 226
Salvation Army	178	67,808	67,808	...
Spiritualists ... ..	...	39	38	- 1
Jews	11	1,255	1,293	+ 38
Total	1,212	392,420	416,548	+ 24,128

Increase or
decrease in
services of
different
sects.

780. In 1888, as compared with 1887, increases in the number of services performed will be observed in the case of the Church of England, the Presbyterians, the Methodists, the Baptists, the Evangelical Lutherans, the Church of Christ, the Roman Catholics, the Catholic Apostolic Church, the Seventh Day Adventists, and the Jews; and decreases in the case of the Welsh Calvinists, the Moravians, the Protestants unattached, the Unitarians, the Swedenborgians, and the Spiritualists.

Churches,
attendance,
etc.

781. The next table shows for the same two years the number of churches or other buildings used for public worship, the number of persons they can accommodate, and the number of persons usually attending at the principal services on the Sabbath:—

* The information in this and the next two tables was obtained from the heads or clergy of the different denominations. In most cases where blanks occur in the column for increase or decrease, no returns have been received for 1888, and the figures for the previous year have been repeated.

† Figures for 1884. No return was received from the Independents between that date and 1888.

CHURCHES, ACCOMMODATION, AND ATTENDANCE.*

Religious Denominations.	Churches and other Buildings used for Public Worship.			Persons for whom there is Accommodation.			Average Attendance at Principal Service.†		
	1887.	1888.	Inc.+ Dec.-	1887.	1888.	Inc.+ Dec.-	1887.	1888.	Inc.+ Dec.-
Church of England	971	982	+11	107,606	108,566	+960	58,858	60,599	+1,741
Presbyterians ...	936	919	-17‡	94,465	95,250	+785	75,290	69,710	-5,580‡
Methodists ...	1,120	1,131	+11	159,929	167,074	+7,145	69,335	73,431	+4,096
Bible Christians...	169	168	-1	16,910	16,910	...	7,330	7,330	...
Independents§ ...	76	80	+4	17,400	20,000	+2,600	9,000	12,000	+3,000
Baptists ...	100	115	+15	15,190	17,004	+1,814	8,176	9,209	+1,033
Evangelical Lu- therans ...	42	52	+10	4,870	5,080	+210	2,910	3,020	+110
Welsh Calvinists	6	7	+1	1,150	1,150	...	600	600	...
Church of Christ	68	70	+2	8,750	9,000	+250	4,000	4,200	+200
Society of Friends	4	4	...	230	230	...	67	67	...
Moravians ...	3	2	-1	250	315	+65	110	115	+5
Protestants unat- tached ...	23	22	-1	5,770	5,730	-40	3,380	3,650	+270
Roman Catholics	513	548	+35	107,067	113,549	+6,482	73,332	73,701	+369
Unitarians ...	1	1	...	500	500	...	160	100	-60
Swedenborgians ...	2	2	...	230	230	...	90	83	-7
Catholic Apostolic	5	5	...	460	510	+50	200	200	...
Christian Israelites	1	1	...	200	200	...	100	100	...
Seventh Day Ad- ventists ...	4	7	+3	300	500	+200	175	300	+125
Salvation Army ...	171	171	...	34,530	34,530	...	29,730	29,730	...
Spiritualists ...	1	1	...	500	400	-100	220	150	-70
Jews ...	7	7	...	2,420	2,425	+5	575	1,052	+477
Total ...	4,223	4,295	+72	578,727	599,153	+20,426	343,638	349,347	+5,709

782. It will be seen that the Church of England, the Methodists, the Baptists, the Lutherans, the Welsh Calvinists, the Church of Christ, the Roman Catholics, and the Seventh Day Adventists returned more, and the Presbyterians,‡ the Bible Christians, the Moravians, and the Protestants unattached returned fewer, church edifices in 1888 than in 1887; that the only denominations which returned less accommodation were the Protestants unattached, and the Spiritualists; and the only denominations which returned a larger

Increase or
decrease of
churches of
different
sects.

* See footnote (*) on previous page.

† These columns present a statement of the average numbers attending at one service on the Sabbath, and it has been pointed out that this mode of calculating the attendance does not render the returns of the different denominations strictly comparable, inasmuch as in connexion with some religious bodies, especially the Roman Catholics, there are several services held on the same day, at each of which an entirely distinct set of worshippers attends, whilst in the case of other denominations the attendance at subsequent services always consists to a greater or less extent of the same individuals who were comprised in the first congregation. The aggregate number of distinct individuals attending *all* the Sunday morning services of the Roman Catholic churches in the Melbourne diocese is stated to have been 55,180 in 1887, and 52,274 in 1888, whilst the number attending the *principal* service was only 27,332 in the first, and 27,271 in the second of those years. Applying the same proportions to the number attending the principal Sunday service in the Roman Catholic churches of all the dioceses—viz., 73,332 in 1887, and 73,701 in 1888—the total number of distinct Sunday morning attendants in the churches of that denomination throughout the colony would be 148,048 in the former and 141,273 in the latter year.

‡ There was no actual falling-off. Some Presbyterian churches situated in Riverina were improperly returned in 1887 as being in Victoria.

§ The figures for Independents in the columns for 1887 relate to the year 1884. No return was received from the Independents between that date and 1888.

attendance at their principal services were the Church of England, the Methodists, the Baptists, the Lutherans, the Church of Christ, the Moravians, the Protestants unattached, the Roman Catholics, the Seventh Day Adventists and the Jews. The fact of some sects returning fewer buildings and less accommodation in the latter year than in the former may perhaps be accounted for—irrespective of the general unreliability, already alluded to,* of the statistics obtained from religious bodies—by the circumstance that halls, schoolhouses, and even private dwellings in which services are held are sometimes returned as church buildings, but disappear from the totals on such services being discontinued.

Total in-
crease in
churches,
etc.

783. As compared with the number in 1887, there was an increase of 72 in the number of church buildings, of 24,128 in the number of services performed, of 20,426 in the accommodation, and of 5,709 in average church attendance.

Sunday
schools.

784. The number of Sunday schools attached to each religious denomination, the number of teachers, and the number of scholars, were returned as follow for 1887 and 1888 :—

SUNDAY SCHOOLS, TEACHERS, AND SCHOLARS.†

Religious Denominations.	Sunday Schools.			Teachers.			Average Attendance of Scholars.		
	1887.	1888.	Inc. + Dec. -	1887.	1888.	Inc. + Dec. -	1887.	1888.	Inc. + Dec. -
Church of England	459	460	+1	3,546	3,750	+204	28,709	30,080	+1,371
Presbyterians ...	405	414	+9	2,849	2,860	+11	30,345	28,907	-1,438‡
Methodists ...	635	671	+36	6,074	6,297	+223	36,324	38,487	+2,163
Bible Christians...	99	103	+4	825	809	-16	3,670	3,870	+200
Independents§ ...	82	90	+8	770	850	+80	7,400	7,850	+450
Baptists ...	59	68	+9	678	720	+42	4,490	5,250	+760
Evangelical Lu- therans ...	21	23	+2	63	68	+5	559	656	+97
Welsh Calvinists	4	4	...	38	42	+4	258	266	+8
Church of Christ	43	43	...	320	340	+20	2,621	2,755	+134
Society of Friends	1	1	...	1	1	...	12	12	...
Moravians ...	2	2	...	5	5	...	42	45	+3
Protestants unat- tached ...	14	12	-2	147	139	-8	1,530	1,599	+69
Roman Catholics	270	280	+10	1,338	1,342	+4	21,628	18,936	-2,692
Unitarians ...	...	1	+1	...	1	+1	...	10	+10
Swedenborgians	2	2	...	6	7	+1	35	35	...
Christian Israelites	1	...	-1	4	...	-4	34	...	-34
Seventh Day Ad- ventists|| ...	5	8	+3	36	44	+8	200	210	+10
Spiritualists ...	2	2	...	35	30	-5	107	92	-15
Jews|| ...	6	7	+1	19	18	-1	200	258	+58
Total ...	2,110	2,191	+81	16,754	17,323	+569	138,164	139,318	+1,154

* See paragraph 778 ante. † See footnote to table following paragraph 779 ante.
‡ See footnote (‡) on previous page. § See footnote (§) on previous page.
|| Schools held on Saturday.

785. As compared with the numbers in 1887, the Sunday schools increased by 81, the scholars in average attendance by 1,154, and the teachers by 569. An increase in schools, teachers, and scholars took place in the case of the Church of England, the Methodists, the Baptists, the Lutherans, the Unitarians, and the Seventh Day Adventists; but a falling-off occurred in the number of schools, teachers, and scholars in the case of the Christian Israelites; in the number of schools and teachers in the case of the Protestants unattached; of the teachers and scholars in the case of the Spiritualists; of the teachers in the case of the Bible Christians and Jews; and of the scholars in the case of the Presbyterians† and the Roman Catholics.

Increase or
decrease of
Sunday
schools.

786. Efforts have been made in the last two years to get a return of the ages of the children attending Sunday schools, but in the majority of instances blank forms were sent back, the religious bodies expressing themselves as unable to supply the information. From such returns as were received, however, it would appear that about 64 per cent. of the children were at the school age, or that between 6 and 15 years,* whilst 22 per cent. were below and 14 per cent. were above that age. The total number of Sunday school scholars was 138,164 in 1887 and 139,318 in 1888, the probable numbers at above and below the school age were, therefore, as follow in these two years:—

Ages of
Sunday
school
children.

PROBABLE AGES OF SUNDAY SCHOOL CHILDREN, 1887 AND 1888.

	1887.	1888.
Under 6 years	30,396	30,650
6 to 15 years	88,425	89,164
15 years and upwards	19,343	19,504
Total	138,164	139,318

787. The estimated number of children living in the colony at the school age* was 202,686 in 1887, and 206,247 in 1888; the proportion of these attending Sunday school was thus probably 44 per cent. in the former and 43 per cent. in the latter year.

Proportion
of Sunday
school
children to
population.

788. The Melbourne University was established under a special Act of the Victorian Legislature (16 Vict. No. 34), which was assented to on the 22nd January, 1853. This Act, as amended by the *University Act* 1881 (44 Vict. No. 691), which came into force on the 7th June, 1881, provides for the endowment of the University by the

Melbourne
University.

* *The Education Act* 1889 (53 Vict., No. 1023), was passed whilst these pages were going through the press. This Statute provided for the alteration of the school age from that between 6 and 15 years to that between 6 and 13 years.

† See footnote (†) to page 379.

payment of £9,000* annually out of the general revenue; also, that no religious test shall be administered to any one to entitle him to be admitted to the rights and privileges of the institution; also for the constitution of a senate, to consist of all male persons who had been admitted to the degree of master or doctor, and for the election by them annually, or after the occurrence of a vacancy, of one of their body as warden as soon as such superior degrees should amount to not less than 100, which number having been reached in 1867, the senate was constituted on the 14th of June of that year; also for the election by the senate of a council consisting of twenty members (all males), of whom not more than three may be members of the teaching staff, and for the election by them out of their own body of a chancellor and a vice-chancellor. The council are empowered by these Statutes to grant in any faculty except divinity, any degree, diploma, certificate, or licence which can be conferred in any University in the British dominions. The recent Act also gives power to the senate to amend Statutes or regulations sent to them by the council; and it also reduces the tenure of office of members of council from life to five years.

University
ranks with
British Uni-
versities.

789. Royal letters patent, under the sign manual of Her Majesty Queen Victoria, were issued on the 14th March, 1859, declaring that the degrees of Bachelor and Master of Arts, and Bachelor and Doctor of Medicine, Laws, and Music, which had been granted or might thereafter be granted by the Melbourne University, should be recognised as academic distinctions and rewards of merit, and should be entitled to rank, precedence, and consideration in the United Kingdom, and in British colonies and possessions throughout the world, just as fully as if they had been granted by any University in the United Kingdom.

Date of
founding
University.

790. The foundation stone of the Melbourne University was laid on the 3rd July, 1854, by His Excellency Sir Charles Hotham, K.C.B., the then Governor of Victoria, and the building was opened on the 3rd October of the following year.

University
thrown
open to
females.

791. On the 22nd March, 1880, the University was thrown open to females. For some years afterwards they were not allowed to study medicine, but this prohibition has recently been removed, and they are now admitted to all the same corporate privileges as male students.

University
fees.

792. The following is a statement of the fees payable at the Melbourne University:—

* Besides this amount, an additional annual subsidy of £2,000 was voted by Parliament for the years 1883 and 1884; £5,500 for the years from 1885 to 1887; and £7,500 for 1888 and 1889. The total subsidy at the present time is thus £16,500 per annum. Moreover, since 1884, various sums amounting in the aggregate to £37,500 have been granted for buildings and apparatus.

UNIVERSITY FEES.

	£	s.	d.
For admission to examination at any matriculation examination ...	0	10	0
For each subject at matriculation selected by the candidate ...	0	5	0
For matriculation and certificate thereof ...	1	1	0
For the degree of Bachelor of Arts—For each year of not more than five courses ...	12	12	0
For the degree of Bachelor of Science—For each year ...	21	0	0
For the degree of Bachelor of Laws—For each year ...	25	4	0
For the degree of Bachelor of Medicine or Bachelor of Surgery—			
For the first year ...	18	18	0
For the second year ...	21	0	0
For any subsequent year ...	25	4	0
For the degree of Bachelor of Engineering—For the fourth year ...	25	4	0
For a course of Surveying, Levelling, and Practical Mensuration ...	6	6	0
For the Certificate of Engineer under the old regulations ...	5	5	0
For any certificate, not for completion of a year's course for a degree, either of attendance upon lectures or of Examination, or of both ...	1	1	0
For any admission <i>ad eundem statum</i> ...	2	2	0
For any degree of Bachelor, whether direct or <i>ad eundem</i> ...	5	5	0
For any higher degree when direct ...	10	10	0
For any higher degree when <i>ad eundem</i> ...	5	5	0

Note.—Besides the above amounts, special fees are charged for different departments.

793 The memorial stone of the University Hall, called the Wilson Hall. "Wilson Hall," was laid on the 2nd October, 1879, in the presence of His Excellency the Marquis of Normanby and a large concourse of spectators, by Sir Samuel Wilson, Knt., then a member of the Legislative Council, now a member of the British House of Commons, who, by his munificent gift of £30,000 (which by interest had increased to £37,000 before the University authorities were in a position to expend it), was the means of the Hall being erected. The building, which, except the organ loft, is now completed, is of the perpendicular Gothic style of architecture, in length 140 feet; breadth 47 feet; height of walls 45 feet; and of apex of roof 84 feet. Its cost has exceeded £40,000.

794. Provision had been made in the Act of Incorporation for the establishment of affiliated colleges in connexion with the four principal religious denominations, and ground for the erection of such colleges was reserved near the University. Up to the present period this privilege has been taken advantage of by the Church of England, Presbyterians, and the Wesleyans; their colleges being named respectively Trinity, Ormond, and Queen's. The Roman Catholics have not yet commenced to erect a college on the site reserved for their body.

795. The following information respecting Trinity College has been supplied for this work:—

"Trinity College, which, though connected with the Anglican Church, extends its advantages of residence and training to all religious denominations alike, stands in a section of the University reserve facing the Sydney road. It was for several years the

only University College in Victoria. From the time of its affiliation to the University, in 1876, the progress of the college was rapid and uninterrupted. Before the end of 1877 a considerable increase in the accommodation for students was required, and a large pile of buildings was consequently erected. In a short time the additional rooms thus provided were all occupied, and the building of another wing was rendered necessary. Through the munificence of Sir Wm. Clarke, Mr. Joseph Clarke, and other friends of the college, the council was in the year 1882 placed in a position to erect the new structure. These additional rooms were speedily occupied, and the buildings were further extended in 1887. The existing buildings, in addition to apartments for the warden, tutors, and students, contain a chapel, dining hall, lecture rooms, billiard room, chemical and biological laboratories, libraries, etc. The college, while maintaining its primary character as a place of residence and education, both religious and secular, for University students belonging to the various professional schools, has also, since the year 1878, contained the Theological Training-school for the Diocese of Melbourne.

"Lectures on the subjects of the Arts, Law, Science, Engineering, and Medical courses are regularly delivered at the college during term. Most of these lectures are given in the evening or early morning, in order to meet the requirements of bank-clerks, teachers, and others who may be prevented, by the nature of their employment, from attending lectures at the University. The college lectures are intended to be ancillary to those delivered in the University, and are given with a view to preparing students for both the Ordinary and Honour University Examinations. The college provides students with extra private tuition in any subject in which they may require special assistance. All the lectures are open to women students, and a large number have already availed themselves of this privilege.

"The college offers exceptional facilities for the study of the subjects of the University Medical course and the course for the degree of Bachelor of Science in its chemical and biological laboratories.

"Special attention is devoted by the Science Lecturers to the preparation of First Year Medical Students in the subjects of Natural Philosophy, Biology, and Chemistry (both practical and medical).

"Practical demonstrations are regularly given in Biology, Physiological Chemistry, and Histology, and form an important feature of the college teaching. The use of microscopes, electrical apparatus, etc., is allowed to the students without extra charge.

"Abundant means for recreation have been provided, including two asphalted tennis courts, a billiard room, and a reading room supplied with the best English, Australian, and American newspapers and periodicals. A special feature of the college is its libraries, containing about six thousand volumes, which comprise many rare and valuable works. The buildings of the college represent an outlay of about £30,000, the whole of which has been derived from the liberality of Victorian churchmen. Between three and four hundred names have already been entered on the college books, and in 1888 there were nearly 100 students residing or attending lectures. The fees payable to the college for residence and commons are sixty guineas per annum; and for tuition, £2 2s. per course per term. In the case of students who have not yet entered upon residence, the payment of the enrolment fee (£2 2s.) secures a grant of rooms upon the first vacancy occurring. Each student is provided with a separate bedroom. The sitting-rooms are for the most part jointly occupied by two students, but a separate sitting-room can be arranged for if desired.

"A hall or hostel, connected with Trinity College and under its control, has been established in the immediate neighbourhood of the college buildings for the residence of women students attending the college lectures. A principal presides over it, who undertakes the religious and moral supervision of the students.

"No religious test or disability is imposed upon the students of the college or hostel, and attendance at the services in chapel is not required in cases where conscientious objections are felt."

796. Ormond College was erected at a total cost to the present date (including furniture, fencing, etc.) of £52,000, of which amount

£46,000 was contributed by its generous founder, the late Hon. Francis Ormond, M.L.C., after whom the college has been named.* It is estimated that when completed in its quadrangular form the total cost of the building will be at least £70,000, and £15,000 has already been obtained from the public towards the maintenance of the institution and the foundation of scholarships. A portion of the north-east side was completed in 1888. This is to be called the Victoria wing, in commemoration of the jubilee of Her Most Gracious Majesty. Although allied to the Presbyterian body, it is open to members of all religious denominations. The following account of this institution has been supplied by the Master of the college:—

“The foundation stone of the college, which is built on a section of the University reserve, was laid by the Marquis of Normanby on the 14th November, 1879; and the college was opened by His Excellency on the 18th March, 1881, and affiliated to the University on the 17th May of the same year. In 1884, owing to the number of applicants for admission, it was found necessary to enlarge the buildings. A new wing containing students’ bedrooms, sitting-rooms, bathrooms, students’ common room, etc., was erected and formally opened by Mrs. Ormond on the 23rd December, 1885. At the opening of the session, 1886, this additional accommodation was all taken up, and when a fourth side was added to the quadrangle and opened at the beginning of the University session, 1889, it was immediately filled with students.

“Tutorial assistance is provided by the college for students in preparing for the University lectures and examinations in Arts, Law, Medicine, and Engineering, and the college lectures are open to both resident and non-resident students.

“Many of the college lectures take place in the early morning and in the evening, so that those who are engaged at other employments throughout the day have an opportunity of preparing themselves for the University Examinations, and of ultimately taking a degree, as the University does not make attendance at its own lectures compulsory, except in the case of Medical students.

“All the classes in Arts and Medicine are open to ladies, and arrangements have lately been made by which the College will be able to provide residential accommodation for ladies attending the University lectures.

“A chemical laboratory has been fitted up by the Council with all the necessary appliances, and classes for Practical Chemistry meet three times a week.

“The college has also a supply of microscopes for the use of students in the Biology Class, and great attention is paid to practical work in this class.

“A reading room, billiard room, and lawn tennis court have been provided by the college, and handed over to the management of the students, who have lately built a College gymnasium, and laid down a second asphalt tennis court. A flourishing debating society meets in the college once a fortnight, and is open to all members of the University.

“During the session 1889, there were in all upwards of 100 students attending the college lectures.

“An examination for entrance scholarships and exhibitions, each of which is of the value of either £18 18s., £25, £50, or £60, is held in the middle of February in each year, and is open to all, irrespective of age, sex, or creed. The total yearly cost for tuition and residence varies from a maximum of £84 13s. to £65 15s., according to the number of subjects in which a student receives tuition; but special arrangements are made either in the case of clergymen’s sons or in the case of students studying for the ministry of the Presbyterian church—these pay about half fees for residence. Breakfast, luncheon, and dinner are provided in hall by the College, so that a student

* Mr. Ormond died on the 2nd June, 1889, and bequeathed to the College a sum of £40,000, part of which will be used to complete and extend the present building, and the remainder will be reserved as a permanent endowment for the institution.

need have no extra expenses except his laundry bill. The lectures in connexion with the Theological Hall of the Presbyterian Church are delivered in Ormond College by two Professors and two Lecturers appointed by the General Assembly. The number of students attending these classes during the session 1889 was 16.”*

797. The following account of Queen’s College has been supplied by the Master :—

“Queen’s College is built in the section of the University Reserve granted by the Government to the Wesleyan Church in the Act of Incorporation of 1853, and is open to students of either sex, without regard to their religious belief.

“The Conference first appointed a Committee to arrange for the building of the College in 1878. Steps were at once taken to secure donations for this object, and a generous response was made, the first donor being Sir William McArthur, of London, who presented £1,000 to the Committee. But it was considered essential that the College should be opened free from debt, and, as the amounts promised were not sufficient to cover the estimated expense, the matter was allowed to stand over until 1887, when, the Conference having voted a sum of £13,000 from the Jubilee Fund for the College, it was decided to build it at once. Accordingly on Thursday the 16th June, 1887, the memorial stone was laid by His Excellency Sir H. B. Loch, K.C.M.G., etc., the then Governor of the Colony, by whom the College was formally opened on 14th March, 1888. On the previous day the Building Committee held its final meeting, and passed a vote of thanks to the Rev. W. A. Quick, whose strenuous and indefatigable efforts in the promotion of the scheme entitle him to the honour of being practically the founder of Queen’s College. The insufficiency of the accommodation provided was felt even during the first session; and steps have been taken to enlarge the building, so as to accommodate about 40 students. A large hall, 60 ft. by 27 ft. is also in course of erection, and will be ready for occupation at the beginning of 1890.

“All the rooms have been furnished by the Council, and each student is provided with a separate bedroom and sitting-room.

“A Lawn Tennis Court and Reading Room have also been provided, and handed over to the management of the students.

“Lectures are delivered in the College on the chief subjects of the University Examinations. The lectures are given in the evening, so as not to interfere with the attendance of students at the University Classes, and are open to non-resident as well as resident students. For the present the Lectures in Chemistry, Biology, and Histology will be given in the Laboratory of Trinity, and those in Classics at Ormond.

“A first-rate microscope has been expressly constructed for the College, under the personal direction of the Rev. Dr. Dallinger, F.R.S., late President of the Microscopical Society of Great Britain.

“The College Library is furnished with all necessary books of reference for the use of students, and all the leading scientific periodicals.

“An examination will be held at Queen’s College, beginning on Tuesday, 19th February, 1889, at 9 a.m., at which eight scholarships will be offered for competition. Each of these is of the value of not less than £50 per annum, tenable for one year only; but scholars will, on the expiry of their tenure, be again eligible as candidates. Scholars are required to reside in the College. Three minor scholarships and two exhibitions will also be awarded.

“Exhibitioners may be resident or non-resident in the College.

“There are no restrictions as to age, sex, or religion for either scholarships or exhibitions. The scholarships and exhibitions will be awarded on condition that the holders thereof obtain first or second class honours at the close of the year.

* For further particulars respecting Ormond College, see *Melbourne University Calendar* and *Ormond College Calendar*.

"Graduates in Arts who intend to read for any University scholarship examination, or to study for degrees in medicine, law or engineering, may be elected scholars or exhibitioners of this College without examination, provided they have taken first or second class honours or a scholarship at any final honour examination.

"Examination entry forms should be filled up and sent in not later than 7th February of each year. Candidates are required to state the subjects in which they wish to be examined, and generally the extent of their reading. They must forward at the same time testimonials of good character. An entrance fee of ten shillings will be charged to each candidate for the examination. This must be forwarded with the entry form.

HOUSE REGULATIONS.

"1. The College is open to members of all religious denominations, either as resident or non-resident students.

"2. Applicants for admission as resident students must produce satisfactory evidence of good moral character.

"3. Each student is required, upon enrolment, to sign the following declaration :—
'I solemnly promise that, so long as I am a student in Queen's College, I will loyally obey the Master and all other persons to whom he may delegate his authority, and will faithfully keep all the rules that are or may be made for the government of the College.'

"4. No student is allowed to reside in the College for a shorter period than one full term, unless he have paid his fees for the whole term.

"5. One term's notice must be given previous to the withdrawal of any student, otherwise a charge of £10 10s. may be made.

"6. Resident students shall have rooms (a separate study and bedroom) assigned to them by the Master. Students will be allowed to choose their rooms in the order of their enrolment, subject to the Master's approval.

"7. Students will be held responsible for any damage done to the furniture of their rooms or to other College property.

"8. All resident students are expected to attend at morning or evening prayers unless specially excused by the Master. Such excuse will be granted to any student who states in writing that he has conscientious objections to being present. Prayers will be held at 7.30 a.m. and 10 p.m. on week days, 8 a.m. and 10 p.m. on Sundays.

"9. Meals will be provided in the College Hall at stated hours, viz. :—Breakfast, 7.40 a.m. (Sundays, 8.10 a.m.); luncheon, 12.30 to 2; dinner, 6.15 p.m.

"10. Non-resident students may have luncheon or dinner in hall by giving due notice, and on payment of 1s. for luncheon and 1s. 6d. for dinner, or by special arrangement with the Master for the whole term.

"11. Any resident student may invite guests (not exceeding two in number for any meal) on entering their names in the guest-book at the meal previous, and on payment at the following rates :—Breakfast, 1s. 6d.; luncheon, 1s. 6d.; dinner, 2s.

"12. Two students shall be appointed weekly by the Master to read the lessons at prayers, and to say grace in hall. A fine of 1s. will be levied in case of absence.

"13. No undergraduate student shall be out of College later than 11 p.m. Students coming in after 11 p.m. will pay a fine of 1s.; after 12 midnight, 2s. 6d.

"14. No student shall spend the night out of College except by special permission of the Master.

"15. No visitor may remain in the College after midnight.

"16. Academical dress shall be worn at prayers, at meals, at lectures and examinations, and at all public ceremonies connected with the College.

"17. The College terms, vacations, and holidays shall be the same as those of the University. Students wishing to remain in residence during the short vacations, or after the close of the October term, may do so by arrangement with the Master.

"18. The fees are as follow, and must be paid within the first week of lectures in each term. A fine of 5s. per week will be levied in case of late payment :—

<i>Entrance Fees.</i>		£	s.	d.
Enrolment fee (to be paid on making application for rooms)	...	2	2	0
*Caution money (resident students only)	... ..	2	2	0
Library entrance fee (resident students)	... ..	2	2	0
" (non-resident students)	... ..	1	1	0

Terminal Fees.†

"Residence and commons, from the beginning of the first term till the third Monday in the fourth term, 60 guineas, to be paid in three equal instalments within the first week of lectures in the first, second, and third terms respectively.

"In the case of students entering for one, two, or three terms only, a proportionate deduction will be made.

	£	s.	d.
Residence and commons, during vacations, per week	1	10	0
Use of furniture, per annum	1	10	0
‡Tuition, per term, one course	2	2	0
" two courses	4	4	0
" three or more courses	6	6	0

"A students' society has been founded, under the name of 'The William Quick Club,' for the purpose of reading essays, holding debates, and in general encouraging social intercourse amongst the students. The ordinary meetings are held on alternate Wednesday evenings at eight o'clock. Membership is open to all members of the University or affiliated Colleges. A sports committee has also been appointed for the arrangement of cricket, tennis, football, and rowing contests. A musical society, for the practice of part singing, is also held at regular intervals.

"Fellowships may be granted (1) to students obtaining first-class honours in the final examination for their degree; (2) to any other persons distinguished for special original work in any department of science or literature. The following are the present Fellows of the College:—The Master (Rev. E. H. Sugden, B.A., B.Sc.); A. H. S. Lucas, M.A., B.Sc.; A. Dendy, M.Sc.; E. F. J. Love, M.A.; J. R. Harcourt, B.A.; the Rev. L. Fison, M.A.; A. S. Way, M.A. The number of Fellows is limited to 12. Rooms and commons may be granted to any Fellow who is engaged in original research approved by the Fellows' Meeting."

798. A Chair of Music has been established in connexion with the University, for the endowment of which the late Hon. Francis Ormond contributed the sum of £20,000. Besides this about £5,000 has been raised by public subscription and concerts for the endowment of musical scholarships in connexion with the Ormond Professorship of Music. The following information respecting the appointment of a professor has been supplied by the Chancellor of the University, Dr. A. C. Brownless, C.M.G. :—

"A commission has been appointed in England to act with the Agent-General in selecting from the candidates who may apply for the professorship five gentlemen whom they may consider the best qualified to fill the office, and from these five the Council will elect the professor, and towards defraying his travelling expenses to this colony, the late Mr. Ormond had prior to his death promised a further sum of £200.

* This will be returned when a student leaves if no arrears are due by him to the College.

† These charges include breakfast, lunch, and dinner. Fuel will be provided at current rates. students must provide their own bed-linen and towels.

‡ Resident students must pay tuition fees for at least two courses of lectures per term. Students in chemistry and biology will have the use of the laboratories at Trinity College on the same terms as the students of that College.

"The salary of the Ormond Professor of Music will be £1,000 per annum, and his tenure of office will be five years, 'si tam-diu se bene gesserit.'

"Great difficulty has been experienced in endeavouring to appoint a suitable professor of music. The selection committee in London reported the names of five eminent musicians from amongst the candidates applying, as the most suitable for the office; but as the committee declined to place them in order of merit or to name any one of them as the most fit for the office, the Council determined to forward the correspondence which took place between the Council and the Agent-General to the Hon. Francis Ormond, who was then on his way to England, in order that he might confer with the selection committee and the Agent-General on the matter.

"Mr. Ormond died, unfortunately, before he had an opportunity of conferring with the Agent-General and the committee of selection. Upon hearing of the death of Mr. Ormond, the Council wrote to the Agent-General, requesting him to again communicate with the committee of selection, with the view of taking the best and most speedy course to obtain a gentleman highly qualified for the appointment.

"In all probability, even if such an appointment be made during this year, the active work of the chair will not be undertaken before the commencement of the next academic year.

"The duties of the Ormond Professor of Music will be—

I. To deliver lectures on—

- (1.) The history of music.
- (2.) Harmony and composition.
- (3.) Thorough bass, counterpoint, and fugue.
- (4.) The teaching of music.
- (5.) The various musical instruments, and the physical laws involved in them.
- (6.) Public performance, solo and concerted playing.
- (7.) Conducting.
- (8.) Vocalisation and the physiological laws governing it.
- (9.) The selection of voices for choirs, solos, and operas.
- (10.) Sound and general acoustics.
- (11.) Instrumentation and reading from orchestral score.

II. To conduct examinations of candidates for musical degrees.

III. To periodically report upon the progress of scholars in music, whether in the colony or travelling.

IV. To conduct examinations of candidates for certificated teachers.

"The professor will not be allowed to sit in Parliament or to become a member of any political association, neither will he in any case be allowed to give private instruction, nor, without sanction of the Council, to deliver lectures to persons not being students of the University."

799. The matriculation examination of the Melbourne University Matricula-
tion exami-
nation. is at present held twice a year, viz., at the end of the first term, and at the end of the fourth term. The subjects of examination are fourteen in number, viz., Greek, Latin, algebra, geometry,* English, history, French, German, arithmetic, geography, elementary chemistry,

* Trigonometry as well as geometry is set in the honour papers, but geometry only in the pass papers.

elementary physics, elementary physiology, and elementary botany. In the first eight of these, honour as well as pass papers are set, but the candidate must decide before entering for the examination which he intends to present himself for. The last four are called science subjects, any two, but not more, of which may be selected. To pass the matriculation course it is necessary, at one and the same examination either to pass in six subjects, or obtaining honours in one subject to pass in four others, or obtaining honours in two subjects to pass in two others.

Matricula-
tion class
lists.

800. In addition to the lists published after every matriculation examination, containing a record of honours, pass, or failure in each subject presented by the various candidates, four class lists are published of those who have passed creditably the honour papers set in—(a) Classics (Greek and Latin); (b) Mathematics (algebra, geometry, and trigonometry); (c) English and history; (d) Modern languages (French and German). In these lists the names of candidates are arranged in three classes—those in the first and second classes being placed in order of merit, those in the third in alphabetical order.

Exhibitions
at matricu-
tion.

801. At the matriculation examination in the fourth term in each year, four exhibitions of the value of £20 each are awarded to the candidates who, being under 21 years of age, severally stand highest in the first class of the four class lists published after that examination.

Candidates
at matricu-
lation ex-
amination.

802. During the year 1888, the total number of candidates at matriculation was 1,112, but only 995 presented themselves for examination, and of these, 442, or 44·4 per cent., passed.

Matricu-
lated
students.

803. A large majority of those who pass the matriculation examination have no intention of pursuing a University career any further and therefore do not matriculate, to do which it is necessary to go through a formal ceremony, which involves making a declaration and signing the matriculation book—the matriculation examination being, as a matter of course, passed beforehand. Although 442 persons passed the matriculation examination in 1888, only 146 matriculated, as against 178 in the previous year. From the date of its opening to the end of 1888, the total number who matriculated was 2,716.

804. In 1888, 539 students, of whom all but one had matriculated, attended lectures, as against 492 in 1887, 450 in 1886, and only 213 ten years previously. Of the number in 1888, 196 attended lectures in Arts, 69 in Laws, 14 in Engineering, 252 in Medicine, and 8 in Science.

805. In 1888, the number of graduates was 134, of whom 118 took direct and 16 *ad eundem* degrees. The direct graduates numbered 115 in 1887 and 103 in 1886. The *ad eundem* graduates numbered 12 in 1887, and 21 in 1886. The following table shows the number of degrees conferred at the University between the date of its first opening and the end of 1888, also those in the year 1888:—

MELBOURNE UNIVERSITY GRADUATES.* 1855 TO 1888.

Degrees.	Prior to 1888.			During 1888.			Total.		
	Direct.	<i>Ad eundem</i>	Total.	Direct.	<i>Ad eundem</i>	Total.	Direct.	<i>Ad eundem</i>	Total.
Doctor of Science	...	2	2	...	...	...	...	2	2
Bachelor of Arts	315	71	386	27	5	32	342	76	418
Master of Arts ...	156	115	271	22	4	26	178	119	297
Bachelor of Medicine	184	10	194	17	...	17	201	10	211
Doctor of Medicine	27	76	103	6	5	11	33	81	114
Bachelor of Science	2	1	3	...	1	1	2	2	4
Master of Surgery	...	...	...	2	...	2	2	...	2
Bachelor of Surgery	136	2	138	25	...	25	161	2	163
Bachelor of Laws	127	6	133	7	...	7	134	6	140
Master of Laws	21	...	21	2	...	2	23	...	23
Doctor of Laws ...	8	17	25	1	1	2	9	18	27
Doctor of Music ...	...	2	2	...	...	...	...	2	2
Bachelor of Engineer- ing ...	1	2	3	2	...	2	3	2	5
Master of Engineer- ing ...	15	...	15	7	...	7	22	...	22
Total ...	992	304	1,296	118	16	134	1,110	320	1,430

806. The following is a statement of the receipts and expenditure of the University in the last two years, including the amounts received for and expended on buildings. An increase will be observed in the revenue, amounting to £2,200, but a decrease of £8,000 in the expenditure:—

* The figures in this table do not always refer to distinct individuals. The total number of graduates was about 900.

MELBOURNE UNIVERSITY.—RECEIPTS AND EXPENDITURE,
1887 AND 1888.

Year.	Receipts from—				Expenditure.
	Government.*	College Fees.	Other Sources.	Total.	
	£	£	£	£	£
1887	14,500	12,818	40	27,358	40,104
1888	15,500	13,282	806	29,588	32,042
Increase	1,000	464	766	2,230	...
Decrease ... ..	...	...	...	...	8,062

Working
Men's Col-
lege.

807. Through the instrumentality, and mainly owing to the liberality, of the late Hon. Francis Ormond, M.L.C. —whose name has been already mentioned in connexion with the Ormond College and the Chair of Music—a Working Men's College has been established in Melbourne.† The following account of this Institution has been supplied for this work by Mr. F. A. Campbell, C.E. (Melb.), F.R.G.S., Secretary to the College :—

“The Working Men's College, Melbourne, is centrally situated, in Latrobe Street, opposite the Public Library. Only the back portion, about one-half of the building, has been at present erected. When the front, which carries a handsome tower at the corner, is completed, it will present an imposing appearance, and add greatly to the architectural adornment of this part of the city.

“The present portion of the structure has cost £11,000, and a similar sum will be required to complete it. The initiation of this institution is due to the late Mr. Ormond, who subscribed £5,500 towards the building, a like sum being obtained by public subscription. The site was granted by Government, as well as a vote of £3,000 for fitting up and maintaining the institution for the current year. It is governed by a Council of eighteen members, consisting of representatives of the founder, the Government, the University, the Public Library, the Trades Hall Council, subscribers of £1 and upwards, and subscribers of from 2s. 6d. to £1 sterling. A subscription of from 2s. 6d. upwards annually gives the privilege of a vote for members of the Council.

“The College is intended to improve the general and technical education of the working classes; but is open to all, women as well as men. The class work is carried on almost entirely in the evenings, between the hours of 7·30 and 10·15 p.m.

“Saturday morning lectures in science, for the special benefit of State school teachers, are also carried on.

* See footnote to paragraph 788 *ante*.

† The total amount contributed by the late Mr. Ormond to the three institutions during his lifetime was £60,700, viz., £35,000 to the Ormond College, £20,200 to the Chair of Music, and £5,500 to the Working Men's College. Mr. Ormond also bequeathed the sum of £113,500 to charitable and religious purposes, distributed as follows :—Working Men's College, £10,000; Ormond College, £40,000; Melbourne Hospital, £5,000; Melbourne Benevolent Asylum, £5,000; Melbourne Protestant Orphan Asylum, £5,000; Melbourne Deaf and Dumb Asylum, £5,000; Melbourne Blind Asylum, £5,000; Melbourne Sailors' Home, £5,000; Melbourne Alfred Hospital, £5,000; Melbourne Sick Children's Hospital, £5,000; Geelong Hospital and Benevolent Asylum, £5,000; Geelong Protestant Orphan Asylum, £5,000; Ballarat Hospital, £5,000; Ballarat Benevolent Asylum, £5,000; St. George's Presbyterian Church, Geelong, £1,000; Toorak Presbyterian Church, £1,000; Gordon Technical College, Geelong, £1,000; Skipton Presbyterian Church, £500.

"The class work commences in the middle of February, and continues until about the middle of December. The average enrolments for the past year are as follow:—

Algebra	68	History	7
Arithmetic	371	Latin	35
Bookkeeping	100	Mechanics (applied)	43
Building (construction)	26	" (theoretical)	14
Carpentry	105	Mensuration	39
Carriage drafting	21	Modelling	25
Cookery	83	Music (singing)	114
Drafting (elementary)	35	" (theory of)	21
Drawing (architectural)	156	" (violin)	30
" (freehand)	81	" (voice production)	87
" (mechanical)	89	Painting (graining)	46
Elocution	130	Photography	24
English grammar	173	Physiology	46
French	81	Physics	39
Geography	44	Plaster casting	10
Geometry (plane)	11	Plumbing	67
" (practical)	102	Shorthand	146
" (solid)	58	Surveying	24
German	47	Trigonometry	32
Handrailing and staircase building	20	Writing and correspondence	187

"The largest number of individual students enrolled for any one term was 1,953. The average enrolment for the year was 1,767, and the average attendance 1,103.

"The fees have been fixed at a very low rate, so as to be within the reach of all, young apprentices having been especially considered.

"Examinations have been initiated, and certificates are issued to those students who have been successful in passing them.

"The Government having granted an additional half acre of ground, and also placed £5,000 on the estimates for additional buildings, the Council have commenced the erection of a fine block of buildings adjoining the present structure. These additions will be used chiefly for the extension of the trade classes, but will also accommodate the classes in drawing and modelling. An additional sum of £10,000 has been promised by the Government towards the completion of these buildings.

"The progress of this institution, since its commencement, in June, 1887, is shown in the following table:—

Working Men's College.	2nd Term, 1887.	3rd Term, 1887.	1st Term, 1888.	2nd Term, 1888.	3rd Term, 1888.
Total enrolments (individual students)	646	985	1,530	1,953	1,819
Number of females	12	52	164	271	241
Number of juniors (under 18) and apprentices (under 21)	275	414	592	739	681
Fees received £	162 6 2	284 16 11	457 9 6	662 11 10	622 16 0
Average fees per student	5s. 0½d.	5s. 9d.	6s.	6s. 9d.	6s. 10d.
Number of classes	23	37	53	69	74
Number of instructors	13	19	24	30	29
Salaries paid instructors £	105 10 6	236 0 8	438 12 2	682 2 8	735 5 3

808. The present *Education Act* (36 Vict. No. 447), providing free State instruction of a secular character to all willing to accept it, but pre- schools.
scribing that, whether willing to accept State education or not, all

children must be educated up to a certain standard, came into operation on the 1st January, 1873. The following is a statement, based upon returns supplied by the Education Department, of the number of schools aided or supported by the State, and of the instructors and scholars in such schools, for the year prior to and for each of the years which have elapsed since that period :—

STATE SCHOOLS, 1872 TO 1888.

Year.	Number of Schools.*	Number of Instructors.†	Number of Scholars.		
			Enrolled during the Year.	In Average Attendance.	Distinct Children (estimated).‡
1872	1,049	2,416	136,055	68,456	113,197
1873	1,107	3,149	209,406	99,536	174,236
1874	1,167	3,715	221,164	106,886	184,010
1875	1,320	3,826	220,533	101,495§	183,484
1876	1,498	3,772	231,560	106,758§	192,658
1877	1,626	3,860	234,519	116,015	194,994
1878||	1,664	3,906	231,169	116,608	189,455
1879	1,713	4,130	227,775	119,259	193,588
1880	1,810	4,215	229,723	119,520	195,736
1881	1,757	4,303	231,423	121,250	195,526
1882	1,762	4,162	222,945	118,279	187,390
1883	1,777	4,169	222,428	118,328	188,949
1884	1,803	4,199	222,054	120,701	188,238
1885	1,826	4,050	224,685	119,488	189,637
1886	1,870	4,175	230,576	123,550	190,223
1887	1,911	4,294	230,882	123,563	192,565
1888	1,933	4,234	242,046	128,958	197,115

Schools, teachers, and scholars, 1887 and 1888.

809. In 1888, as compared with the previous year, the number of schools increased by 22, the number of scholars on the rolls by 11,164, the number of distinct scholars by 4,550, and the number of scholars in average attendance by 5,395; but the number of instructors decreased by 60.

Net increase of schools.

810. The net increase of schools during the year, amounting to 22, as just stated, is made up of 68 new schools opened, less 46 schools closed.

* In accordance with the principle followed in the Education Department, each night school as well as each day school (although both kinds of schools may be carried on in the same building) is considered as a separate school, and is included as such in this column. There was only 1 night school in 1872, there were 29 in 1873, 56 in 1874, 117 in 1875, 181 in 1876, 216 in 1877, 208 in 1878, 180 in 1879, 186 in 1880, 41 in 1881, 35 in 1882, 27 in 1883, 30 in 1884, 23 in 1885, 24 in 1886, 19 in 1887, and 17 in 1888.

† Including workmistresses, who numbered 480 in 1888.

‡ The figures in this column are derived from estimates formed by the Education Department, the reduction made for multiple enrolments in the last two years being as follows :— In 1887, 16·17 for day schools, and 44·60 for night schools; in 1888, 18·09 per cent. for day schools, and 51·16 for night schools. For proportions adopted for previous years, see *Victorian Year-Book*, 1887-8, vol. III., page 61.

§ The average attendance was affected in 1875, and to a certain extent also in 1876, by the prevalence of epidemics of scarlatina and measles.

|| With the commencement of 1878 capitation grants were abolished, the consequence being that 30 schools, which in 1877 had been receiving such grants, ceased to be connected with the State.

811. By comparing the figures on the lowest and uppermost lines in the table following paragraph 808 *ante*, it will be ascertained that, during the period the present *Education Act* has been in force,* the following increases have taken place in, and in connexion with, the schools supported by the State:—

Increase in
State
schools,
1872-88.

STATE SCHOOLS.—INCREASE BETWEEN 1872 AND 1888.

	Number.	Percentage.
Schools	884	84·27
Instructors	1,818	75·25
Scholars on the rolls	105,991	77·90
„ in average attendance	60,502	88·38
Distinct children attending (estimated)	83,918	74·13

812. The instructors referred to consist of masters and mistresses, male and female assistant teachers, and pupil teachers and work-mistresses. According to the following table, there was a falling off during the year of 57 male and 3 female teachers:—

TEACHERS IN STATE SCHOOLS, 1887 AND 1888.

Year.	Males.				Females.				
	Masters.	Assistants.†	Pupil-teachers.	Total.	Mistresses.	Assistants.†	Work-mistresses.	Pupil-teachers.	Total.
1887... ..	1,331	210	209	1,750	485	623	528	908	2,544
1888... ..	1,318	212	163	1,693	485	657	480	919	2,541
Increase ... ..	...	2	...	...	...	34	...	11	...
Decrease	13	...	46	57	...	...	48	...	3

813. In every one of the Australasian colonies the State system of education is compulsory and undenominational (or secular). Western Australia, however, grants some assistance to private denominational schools. Public instruction is free in Victoria, Queensland and New Zealand; but fees are charged in the other colonies, although they are partially or entirely remitted in cases where the parents are unable to pay them. The prescribed school age varies in the different colonies—in Victoria, during 1888, it was from 6 to 15 years; in New South Wales and Western Australia, from 6 to 14; in Queensland, from 6 to 12; in South Australia and New Zealand, from 7 to 13; and in Tasmania from 7 to 14.‡

State
education
systems of
Austral-
asian
colonies.

* During this period the number of children at school age in the colony increased by 17½ per cent., and the total population by about 41 per cent.

† Including 62 relieving teachers in 1887, and 68 such teachers, viz., 38 males and 30 females, in 1888.

‡ For a full account of the education system of the various colonies, see Appendix B., *post*.

814. The following table shows the number of State schools, teachers, and scholars in each Australasian colony during the year 1888; also the proportion of scholars in average attendance to population:—

STATE SCHOOLS, TEACHERS, AND SCHOLARS IN AUSTRALASIAN COLONIES, 1888.

Colony.	Number of Schools.	Number of Teachers.*	Scholars in Average Attendance.	
			Number.	Number per 100 of the Population.
Victoria	1,933	4,234	128,958	12·14
New South Wales	2,271	3,913	112,220	10·54
Queensland	552	1,480	38,926†	10·32†
South Australia	536	934	28,329	8·91
Western Australia	93	162	3,659	8·65
Total	5,385	10,723	312,092	10·90
Tasmania	220	429	8,730	6·05
New Zealand	1,128	2,839	90,108	14·88‡
Grand total	6,733	13,991	410,930	11·37

815. It will be observed that, in proportion to population, the average attendance at State schools is largest in New Zealand, where, however, the proportion is swelled by Maori children being included amongst the scholars, whereas they are not included in the population. Victoria, however, stands above any of the other colonies. The following is the order of the colonies in this respect, Tasmania being at the bottom of the list, which, however, may be explained by the circumstance that in Tasmania the proportion of children to the population is smaller than in the other colonies:—

ORDER OF THE COLONIES IN REFERENCE TO PROPORTION OF STATE SCHOOL SCHOLARS TO POPULATION.

- | | |
|---------------------|-----------------------|
| 1. New Zealand. | 5. South Australia. |
| 2. Victoria. | 6. Western Australia. |
| 3. New South Wales. | 7. Tasmania. |
| 4. Queensland. | |

816. By the figures in the last column of the following table it is shown that in proportion to the total number of children enrolled in State schools, the average number attending is greater in Victoria

* It is believed that workmistresses are included in the returns of all the colonies.

† The figures of average attendance for Queensland given in previous years were incorrect. The figures formerly returned represented the mean quarterly enrolment, which, of course, gives a higher proportion than the average daily attendance. Hence the apparent falling off.

‡ This high proportion is partly accounted for by the circumstance that Maoris are included amongst the scholars, but excluded from the population.

than in New South Wales or Tasmania, but less than in any of the other Australasian colonies:—

STATE SCHOOL ATTENDANCE IN AUSTRALASIAN COLONIES, 1888.

Colony.	Number of Scholars.		Percentage of Average Attendance to Gross Enrolment.
	Enrolled during the Year.	In Average Attendance.	
1. Western Australia	4,679	3,659	78·20
2. New Zealand	152,221	90,108	59·20
3. Queensland	67,918	38,926*	57·31*
4. South Australia	50,425	28,329	56·18
5. Victoria	242,046	128,958	53·28
6. New South Wales	212,150	112,220	52·90
7. Tasmania	17,125	8,730	50·98

817. Of the gross number of children on the rolls of Victorian State schools in 1888, 238,614, or over 98½ per cent., were in day, and 3,432, or not quite 1½ per cent., were in night, schools. The following is a statement of the numbers of such children, at each age, placed side by side with the estimated numbers living at the same ages:—

Ages of
State
school
scholars.

AGES OF STATE SCHOOL SCHOLARS ENROLLED, 1888.

Ages.	Number of Children Enrolled.			Estimated Population at each Age.
	In Day Schools.	In Night Schools.	Total.	
3 Years	2,695	...	2,695	25,361
4 "	10,083	...	10,083	24,600
5 "	16,656	...	16,656	23,420
6 "	21,913	...	21,913	23,244
7 "	23,755	...	23,755	23,025
8 "	24,431	...	24,431	22,561
9 "	24,299	...	24,299	23,522
10 "	24,000	...	24,000	23,240
11 "	23,036	...	23,036	23,065
12 "	21,785	...	21,785	22,941
13 "	19,174	641	19,815	22,491
14 "	13,568	1,102	14,670	22,158
15 "	7,064	974	8,038	22,105
16 to 18 Years	2,871	711	3,582	23,224†
Unspecified	3,284	4	3,288	...
Total	238,614	3,432	242,046	324,957
Total, 6 to 15 years ...	195,961	1,743	197,704	206,247

* See footnote (†) to last table.

† Age 16 to 17 only.

School attendance at various ages.

818. It will be observed that the difference at the school age (6 to 15 years*) between the enrolments and the numbers living is 8,500; but that between the ages of 7 and 10 years the enrolments even exceed the estimated numbers living at the same ages. It must, however, be remembered that the gross annual enrolment is given, under which a child attending several schools in the year would be entered afresh at each school; also that the population, although carefully estimated from the best information available, may possibly be more or less wide of the truth.

Ages of distinct children in State schools.

819. Grouping the numbers in this table so as to distinguish the scholars below, at, and above the school age,* and adopting the correction applied by the Education Department—already alluded to†—to allow for children who attended at more than one school in the year, the following results, showing the probable number of distinct children who attended State schools in the year are obtained :—

AGES OF DISTINCT CHILDREN ATTENDING STATE SCHOOLS, 1888.

Ages.	Distinct Children Attending.					
	Day Schools.		Night Schools.		Total.	
	Number.	Per-centage.	Number.	Per-centage.	Number.	Per-centage.
Under 6 years ...	24,445	12·51	...	...	24,445	12·40
6 to 15 " ...	162,743	83·27	852	50·84	163,595	83·00
15 years and upwards ...	8,251	4·22	824	49·16	9,075	4·60
Total ...	195,439	100·00	1,676	100·00	197,115	100·00

Sexes of scholars in State schools.

820. In the State schools, boys exceed girls. In 1887, the proportion was 91, and, in 1888, 92 of the latter to every 100 of the former. In 1888 there was an improvement in the average attendance of both sexes as is shown in the following table :—

SEXES OF SCHOLARS IN STATE SCHOOLS, 1887 AND 1888.

Year.	Scholars in Average Attendance.		
	Boys.	Girls.	Total.
1887 ...	64,585	58,978	123,563
1888 ...	67,255	61,703	128,958
Increase...	2,670	2,725	5,395

* The school age has since been altered to that between 6 and 13 years. See footnote to paragraph 787 ante.

† See footnote (†) to table following paragraph 808 ante.

821. The 13th section of the *Education Act* prescribes that the parents of children between the ages of 6 and 15 shall cause such children to attend school for at least 60 days in each half-year,* unless there is some valid reason to prevent them from so doing. The returns, which are made up quarterly, show that of the whole number set down as attending State schools in 1888, the highest proportion which completed a 30 days' attendance ($76\frac{1}{2}$ per cent.) was in the September quarter; the next highest ($75\frac{1}{2}$ per cent.) was in the June quarter; the next (72 per cent.) was in the December quarter; and the lowest proportion (69 per cent.) was in the March quarter, the mean 30 days' attendance for the whole year being $73\frac{1}{3}$ per cent., as compared with $71\frac{2}{3}$ per cent. in the previous year. The following are the figures for the four quarters of 1888; also the average for the year:—

STATE SCHOOL ATTENDANCE IN EACH QUARTER OF 1888.

Quarter ended—	Number who Attended School.		Percentage who completed 30 days' Attendance.
	Total in each Quarter.	For at least 30 days in each Quarter.	
31st March	183,294	126,780	69·16
30th June	185,901	140,695	75·68
30th September	187,288	143,220	76·47
31st December	184,349	132,724	71·99
Average	185,208	135,854	73·35

822. It should be mentioned that a considerable proportion of those who attended less than 30 days in all the quarters were exempt or excusable for various reasons. During the last quarter of the year, for example, 51,625 of the enrolled children attended less than 30 days; but to 11,865 of these the compulsory provisions of the Statute did not apply, as they were either above or below the school age; 9,018 were also exempt on account of living beyond the prescribed distance (from two to three miles) from a State school, and 2,370 on account of having been educated up to the standard; whilst 6,722 were excusable on account of sickness, and 13,898 entered late in the quarter or left before its termination; thus the number of actual defaulters was reduced to 7,752, or to 4·2 per cent. of the number enrolled. Taking the year as a whole, the defaulters who had no reasonable excuse averaged only 3·22 per cent.

* The *Education Act* 1889, which altered the school age to that between 6 and 13 years, also increased the period of compulsory school attendance from 60 to 80 days each half-year.

Pupils who
have passed
the stan-
dard.

823. In 1888, the children who passed the examination qualifying for the certificate of exemption from further attendance at school numbered 4,680, or more by 321 than in 1887. During the sixteen years which have elapsed since the passing of the present Education Act, 101,227 children passed this examination; some of these, however, were above the school age.

Prosecu-
tions for
non-attend-
ance at
school.

824. In order to carry out the compulsory portion of the system, 7,722 prosecutions against parents were instituted in 1888, with the result that 6,846 convictions were obtained, whilst in 662 other instances the case was withdrawn or not proceeded with, and in 214 instances the case was dismissed. The total amount of fines inflicted was £1,831, also costs amounting to £311. About three-fourths of the prosecutions were instituted by the Boards of Advice.

Free
subjects.

825. In 1888, military drill was taught in 215 schools to an average attendance of 13,202 pupils, and in 11 of these schools instruction in gymnastics was also given to 707 pupils; singing was taught in 279 schools, by 34 visiting teachers and 103 members of the ordinary staff, to 36,940 pupils; and drawing was taught, in 217 schools, to 23,247 pupils. All these are free subjects.

Kinder-
garten
instruction.

826. In the early part of 1887, the kindergarten system of instruction specially engaged the attention of the Education Department, and a lady who was recommended as an expert in the work was asked to deliver a course of lectures explanatory of the system. Great interest in the matter was shown by the teachers, about 90 of whom attended these lectures. The result is that in 1888 kindergarten instruction was practised in about a dozen of the Melbourne schools, and the Minister reports that the system is slowly and surely growing in favour, and that it is proposed to extend its advantages to the country districts.*

Extra
subjects.

827. The number of schools in which extra subjects were taught in 1888 was 104, as against 123 in 1887, and as many as 164 in 1886; the amount paid by pupils for instruction in such subjects was £2,238 in 1888, as against £2,448 in 1887. As compared with the previous year, there was a marked decrease in the pupils being instructed in nearly all the subjects except advanced English, physical geography, and shorthand.† Some of the other subjects also are now taught to a certain extent in the ordinary course under the revised programme, and many pupils who have gained exhibitions or scholarships now

* See Education Report 1888-9, page xxii.

† See next paragraph.

pursue their studies at secondary schools.* The following is a list of the subjects, and the number of pupils instructed in each subject in 1887 and 1888:—

EXTRA SUBJECTS TAUGHT IN STATE SCHOOLS, 1887 AND 1888.

	1887. Pupils.	1888. Pupils.
Advanced English ...	...	30
French ...	558	522
German ...	12	6
Latin ...	571	470
Euclid ...	519	474
Algebra ...	734	719
Trigonometry ...	...	1
Mensuration† ...	51	35
Bookkeeping ...	1,187	1,168
History† ...	4	...
Chemistry† ...	...	1
Physiology† ...	35	4
Physics† ...	90	70
Physical Geography ...	20	30
Shorthand ...	38	92
Painting ...	32	20

828. To enable them to continue their education at the best grammar schools, two hundred scholarships are annually awarded to the most clever and industrious pupils of State schools, who are selected in accordance with the results of competitive examinations, the conditions being that all must be under 15 years of age and in the sixth class. Each scholarship is of the value of £10, tenable for three years, on condition that the scholar attends at, and obtains favourable reports annually from the authorities of, one of the public grammar schools, one of the Schools of Mines, one of the Agricultural Colleges, or some other school approved by the Minister. If the scholar does not live within three miles from the approved place of education, the Minister may allow him such sum as will cover his cost of transit to and fro, or may commute the scholarship for one of £40 tenable for one year. The holders of commuted scholarships, at the end of a year, may compete among themselves for renewed scholarships offered to 30 of the best students. In the following year these 30 students may present themselves for a further renewal offered to the best 15. The subjects for competitive examination are solely those taught in State schools, except in the case of competitions for a renewal of commuted scholarships, when the examination is partly upon the State school subjects, but chiefly upon the new subjects they have been learning at the grammar schools. These scholarships were instituted in 1886, and up to the

State
school
scholar-
ships.

* See Education Report, 1888-9, Parliamentary Paper No. 98, Session 1889, page xx.

† Now included in a greater or less degree in the ordinary course.

end of 1888 six hundred had been awarded. Of these 68 were commuted; in 439 instances the successful competitor attended at grammar school or college; in 80 instances he resigned or did not take up his scholarship; in 3 instances he was suspended for a year; in 8 instances he gained an exhibition; and in 2 instances he died.*

Candidates
for scholar-
ships.

829. The increase from year to year in the number of candidates who present themselves at the initial examinations for these scholarships, as shown by the following figures, indicates either that the desire to gain the higher education of the grammar schools has become more general, or that the number of pupils supposed to be qualified to compete with a fair chance of success is on the increase:—

						Candidates for Scholarships.
1886	...	...	...	...	...	313
1887	...	...	...	...	...	527
1888	...	...	...	...	...	694

State
school
exhibitions

830. There are also eleven exhibitions, each of the yearly value of £35, which are annually awarded for competition to scholars under 15 years of age attending State schools. Each exhibition is tenable for six years—two of which may be passed at a grammar school approved of by the Minister of Public Instruction, and the remainder must be spent at the University. The examination for the exhibitions has hitherto been upon the same programme as that of the scholarships, and thus one set of questions has served for both examinations, and most of the candidates for exhibitions have been also candidates for scholarships; but it has been decided that in future those only will be allowed to compete for exhibitions who have held scholarships for three years and have passed the matriculation examination; thus, while the scholarships will continue to have for their object the providing a grammar school education to selected pupils of the State schools, the exhibitions will aim at affording these the further benefit of a university education. The subjects upon which the candidates will be examined will be those taught in grammar schools, namely, six of the subjects prescribed for the matriculation examination, four of them being specified, and two out of four languages named be left to the choice of the candidate.† In 1888 there were 177 candidates for the State school exhibitions. Of the successful candidates 7 were from Melbourne and suburbs, and the others from the country districts. During the same year there were 26 exhibitioners attending at the University, 1 at Trinity College, and 31 at various approved

* See Education Report, 1888-9, page xxiii.

† See Education Report, 1888-9, page xxv.

grammar schools; 24 of the latter number being in Melbourne and suburbs, 3 in Geelong, 2 in Ballarat, and 1 each in Castlemaine and Sandhurst.

831. The regulations and practice of the Education Department relative to the supply of school books, apparatus, and other requisites are as follow:—Such books and apparatus as may be regarded as indispensable to the efficient working of the school are supplied by the department for the teacher's use free of charge. It is expected that the children will generally supply themselves with books, slates and other articles required to enable them to take part in the work of their class, but free grants of school requisites are made for children who are unprovided with them for use in the school. The Minister reports "the rules relating to the granting of free stock have been found to work well, and have been administered by teachers with considerable tact and judgment, so that while no child is allowed to remain unsupplied with such books as he really needs, an indiscriminate use of free grants is avoided."*

School
books and
requisites.

832. The following is a statement of the expenditure from all sources on State education during the financial years 1887-8 and 1888-9. The amounts on the lowest line above the total were paid by parents, all the remainder by the State:—

Expenditure
on State
education.

EXPENDITURE ON PRIMARY EDUCATION, 1887-8 AND 1888-9.

Heads of Expenditure.	Amounts Expended.		Increase.	Decrease.
	1887-8.	1888-9.		
GENERAL EXPENDITURE.	£	£	£	£
Office staff†	20,482	21,604	1,122	...
Inspection‡	19,328	19,996	668	...
Teachers' salaries	348,620	361,247	12,627	...
„ payments on results	131,973	139,030	7,057	...
Singing	7,428	7,337	...	91
Drawing	4,604	4,902	298	...
Drill and gymnastics ...	3,297	3,500	203	...
Bonuses	3,940	3,888	...	52
Training Institute§ ...	4,430	4,049	...	381
Stores, books, and requisites	5,732	6,481	749	...
Maintenance expenses of schools	35,855	41,021	5,166	...
Compulsory clause ...	3,260	2,913	...	347

* See Education Report, 1887-8, page xii.

† Including non-clerical division, and temporary clerical assistance

‡ Including travelling expenses.

§ Including allowance for board of students and prizes for students in training

EXPENDITURE ON PRIMARY EDUCATION, 1887-8 AND 1888-9—*continued.*

Heads of Expenditure.	Amounts Expended.		Increase.	Decrease.
	1887-8.	1888-9.		
GENERAL EXPENDITURE— <i>continued.</i>	£	£	£	£
Purchase of carbines and encouragement of rifle shooting	44	46	2	...
Boards of Advice ...	924	1,058	134	...
Compensation, retiring allowances, gratuities, etc.	16,718	20,563	3,845	...
Other expenditure*	3,885	4,358	473	...
<i>Extra subjects</i> † ...	2,448	2,238	...	210
Total exclusive of buildings	612,968	644,231	31,263†	...
EXPENDITURE ON BUILDINGS.				
Maintenance ...	17,995	30,075	12,080	...
Rent ...	8,408	3,622	...	4,786
Cost of erection ...	54,281	68,000	13,719	...
Grand total ...	693,652	745,928	52,276†	...

State expenditure on primary education, 1880 to 1889

833. It will be observed that the total expenditure on public instruction in 1888-9 was £745,928, of which only £2,238 was paid by parents. The amount paid by the State (£743,690) was made up of £641,993 cost of management, inspection, instruction, etc.; of £33,697 for maintenance and rents of private buildings; and of £68,000—of which £60,000 was to be recouped from loans—for the erection of buildings. The following are the amounts expended under each of these heads during the last ten years:—

STATE EXPENDITURE ON PRIMARY EDUCATION, 1880-89.

Financial Year.	General Expenditure (Exclusive of Buildings.)	Expenditure on Buildings, Rents, etc.			
		From Revenue.			From Loans (Cost of Erection of Schools.)
		Maintenance.	Rents.	Cost of Erection of Schools.	
	£	£	£	£	£
1879-80 ...	512,861	10,000	5,899	...	66,085
1880-1 ...	521,006	14,930	4,864	...	84,828
1881-2 ...	533,225	19,604	4,487...	2,127	50,693

* Including teachers' travelling expenses and expenses of examiners in singing, drawing, and science, which amounted in 1887-8 to £3,674 and £161 respectively; and in 1888-9 to £3,370 and £149.

† This is the only item paid by parents. The amounts are for the calendar years 1887 and 1888.

‡ Net increase.

STATE EXPENDITURE ON PRIMARY EDUCATION, 1880-89—*continued*.

Financial Year.	General Expenditure (Exclusive of Buildings).	Expenditure on Buildings, Rents, etc.			
		From Revenue.			From Loans (Cost of Erection of Schools).
		Maintenance.	Rents.	Cost of Erection of Schools.	
	£	£	£...	£	£
1882-3 ...	525,405	20,000	3,725	...	58,501
1883-4 ...	530,135	19,887	2,970	...	38,953
1884-5 ...	535,347	19,900*	2,400	...	81,935
1885-6 ...	575,799†	19,949	2,700	...	53,602
1886-7 ...	584,195	15,449	2,981	...	49,748
1887-8 ...	610,520	17,995	8,408	16	54,265‡
1888-9 ...	641,993	30,075	3,622	8,000	60,000‡

834. In view of the large sums the State expends upon elementary education, the amount parents are willing to pay to have extra subjects taught their children appears extremely small. If the whole sum so expended in 1888-9 be divided by the number of children in average attendance, the proportion per child would be about 4d. per annum; and if it be divided by the number of distinct children enrolled, the proportion per child would be barely 2½d. Amount paid for extra subjects.

835. The following table shows the cost of public instruction in all the Australasian colonies during the year ended 31st December, 1888, the amount paid by scholars being given separately from that contributed by the State. It is believed that expenditure on the construction, maintenance, and rent of school buildings is excluded; but that the departmental expenses are, in all cases, included:— Cost of primary instruction in Australasian colonies.

COST OF PUBLIC PRIMARY EDUCATION§ IN AUSTRALASIAN COLONIES, 1888.

Colony.	Amount contributed by the State.	Fees paid by scholars, etc.	Total.
	£	£	£
Victoria|| ...	626,257	2,238	628,495
New South Wales ...	442,973	69,554	512,527
Queensland ...	151,831	...	151,831
South Australia ...	87,803¶	24,101	111,904

* Approximate.

† The *Public Service Act* 1883 came into operation about the middle of the financial year, *i.e.*, at the commencement of 1885, hence the increased cost in this year.

‡ These amounts were expended from revenue, but are to be recouped from a loan.

§ Total cost, exclusive of expenditure (either for erection, maintenance, or repairs) on buildings, and rent. In former years, the corresponding amounts returned as cost of education were not on a uniform basis. Some colonies excluded the cost of general management, etc.; whilst others included portion of the expenditure on buildings and rent. The figures for 1888 are believed to be on a fairly uniform basis.

|| The figures relate to the calendar, not the financial year.

¶ Including £12,935 from Education reserves.

**COST OF PUBLIC PRIMARY EDUCATION* IN AUSTRALASIAN
COLONIES, 1888—continued.**

Colony.	Amount contributed by the State.	Fees paid by scholars, etc.	Total.
	£	£	£
Western Australia ...	9,208	1,469	10,677
Total ...	1,318,072	97,362	1,415,434
Tasmania ...	32,649	8,980	41,629
New Zealand ...	347,416†	1,300	348,716
Grand Total ...	1,698,137	107,642	1,805,779

Cost of
primary
instruction
per scholar
in each
colony.

836. Exclusive of expenditure on erecting and keeping in repair or renting State school buildings, the total cost in 1888 per scholar in average attendance at State schools ranged from £4 17s. 6d. in Victoria to £2 18s. 4d. in Western Australia. Of the total cost, as much as £1 0s. 7d. per head was derived from school fees in Tasmania, 17s. in South Australia, 12s. 5d. in New South Wales, and 8s. in Western Australia; on the other hand, in Victoria, Queensland, and New Zealand practically the whole amount was provided from public funds. In New Zealand about one-twelfth, and in South Australia about one-seventh, of the State expenditure on education was derived from Education reserves. The following table shows the average cost per scholar, distinguishing the proportions defrayed by the State and by parents or otherwise, in each colony:—

**COST OF PRIMARY INSTRUCTION PER SCHOLAR IN AUSTRALASIAN
COLONIES, 1888.***

Colony.	Cost per Scholar in Average Attendance.		
	Paid by State.	Paid by Parents, etc.	Total.
	£ s. d.	£ s. d.	£ s. d.
1. Victoria ...	4 17 2	0 0 4§	4 17 6
2. Tasmania ...	3 14 9	1 0 7	4 15 4
3. New South Wales ...	3 18 11	0 12 5	4 11 4
4. South Australia ...	3 2 0†	0 17 0	3 19 0
5. Queensland ...	3 18 0	...	3 18 0
6. New Zealand ...	3 17 2‡	0 0 3§	3 17 5
7. Western Australia ...	2 10 4	0 8 0	2 18 4

* See footnote (§) on preceding page.

† Including £29,143 from Education reserves.

‡ In South Australia about 9s. 2d., and in New Zealand about 6s. 6d. of the amounts entered in this column was derived from Education reserves.

§ For extra subjects only.

837. In regard to the net cost to the State of primary instruction per head of population, Victoria stands at the head of the list, the amount being 11s. 10d., and Western Australia stands at the bottom with only 5s. 1d. The following is the order of the colonies in this respect :—

ORDER OF COLONIES IN REFERENCE TO COST OF STATE
PRIMARY EDUCATION PER HEAD OF POPULATION.*

	Amount paid per Head of Population.			Amount paid per Head of Population.	
	s.	d.		s.	d.
1. Victoria ...	11	10	5. South Australia ...	7	0
2. New Zealand...	11	6	6. Tasmania ...	5	9
3. New South Wales ...	9	8	7. Western Australia...	5	1
4. Queensland ...	8	1			

Order of colonies in respect to cost per head.

838. In Australia, taken as a whole, the cost per scholar in average attendance is £4 10s. 8d., and the cost per head of population 9s. 11d. In Australia, with the addition of Tasmania and New Zealand, the cost per scholar is £4 7s. 11d., and the cost per head of population is 10s.

Cost per scholar and per head in Australia and Australasia.

839. It has been shown that the amounts devoted to primary instruction in Victoria are larger than those so expended in any of the other Australasian colonies ; but it is satisfactory to know that the expenditure is justified by the result, the last census having shown that, in respect to the education of children, Victoria was much in advance of any of her neighbours, whilst she was only behind one of them in respect to the education of adults. The census figures relating to these matters will be given later on.†

Success of education system greatest in Victoria.

840. The following figures show that the amounts expended on the higher education in 1888-9 exceeded by £14,000 that so expended in the previous year, the increase being entirely under the head of exhibitions and scholarships, and under that of technical schools and schools of mines :—

State expenditure on secondary instruction.

EXPENDITURE ON SECONDARY EDUCATION.

	1887-8.	1888-9.
	£	£
Exhibitions and Scholarships ...	6,519	9,077
Technical Schools and Schools of Mines ...	11,099	24,093
Melbourne University Endowment and Subsidy...	16,500	16,500
„ „ Buildings ...	5,000	3,500
Total ...	39,118	53,170

841. About the middle of 1889 the Department of Education possessed 1,948 school-houses, having accommodation for 185,868

State school buildings held in fee simple.

* See footnote (§) to table following paragraph 835 *ante*.

† See tables following paragraph 865 *et seq. post*.

children; also 1,433 teachers' residences. Of the latter, 1,067 were attached to, and 366 were detached from, the school-houses. The following is a classification of the buildings and of the accommodation they afforded according to the material of which they are constructed:—

SCHOOL BUILDINGS BELONGING TO THE STATE, 1889.

Materials.	School-houses.		Number of Teachers' Residences.
	Number.	Accommodation.	
Brick or stone	477	110,196	87
Wood or other light material ...	1,449	68,350	1,332
Part brick or stone, part wood ...	22	7,322*	14
Total	1,948	185,868	1,433

Classifica-
tion of
schools.

842. Under the *Public Service Act* 1883 (47 Vict. No. 773), State schools are classified as follows, according to the number of pupils in average attendance at each:—

CLASSIFICATION OF SCHOOLS.

	Average Attendance of Scholars.
First Class	Over 700
Second Class	400 to 700
Third Class (Subdivision A) ...	250 to 400
" (Subdivision B) ...	150 to 250
Fourth Class	50 to 150
Fifth Class	Under 50

Classifica-
tion and
salaries of
teachers.

843. Under the same Act, the teachers are classified and salaried according to the honours or certificates they hold and the schools in which they officiate. Subjoined is a statement of the basis upon which the classification is regulated:—

CLASSIFICATION AND SALARIES OF TEACHERS.

First-class teachers.—Male teachers who are certificated, and are classified in First Honours, or hold a degree of the University of Melbourne, and also are in charge of first-class schools. Minimum fixed salary, £280 per annum, rising by five annual increments of £10 to a maximum of £330.

Second-class teachers.—Male teachers who are certificated, and are classified in Second Honours, and also are in charge of second-class schools; also certificated female teachers who are first assistants in first-class schools, and are classified in First or Second Honours, or hold a degree of the University of Melbourne. Minimum fixed salary for males, £220 per annum, rising by five annual increments of £10 to a maximum of £270. Minimum fixed salary for females, £176 per annum, rising by five annual increments of £8 to a maximum of £216.

Third-class teachers.—That is, teachers who are certificated, and have also passed the matriculation examination; or are certificated and hold two of the Department's science certificates; or have obtained the trained teacher's certificate subsequently to

* Of which 5,253 was the accommodation of the brick or stone portion, and 2,069 of the wooden portion.

31st December, 1875; or obtained a trained teacher's certificate of first or second class under the Board of Education; or possess a certificate of competency alone in the case of teachers employed at the passing of this Act. And in addition to possessing any such qualification also hold one of the following positions, that is to say—As head teachers of third-class schools, or as first male assistants in first-class schools, or as first female assistants in second-class schools; or as first female assistants in schools which were reduced from the second class on the 30th June, 1888. Minimum fixed salary for males, £176 per annum, rising by four annual increments of £8 to a maximum of £208. Minimum fixed salary for females, £121 12s., rising by seven annual increments of £6 8s. to a maximum of £166 8s.

Fourth-class teachers.—That is, teachers who are certificated, and also are in charge of fourth-class schools, or hold positions as first male assistants in second-class schools, or as first female assistants of third-class schools. Minimum fixed salary for males, £144 per annum, rising by three annual increments of £8 to a maximum of £168. Minimum fixed salary for females, £89 12s., rising by four annual increments of £6 8s. to a maximum of £115 4s.

Fifth-class teachers.—That is, teachers who are licensed to teach, and also are in charge of fifth-class schools, or hold other assistantships than those specified above, or act as relieving teachers. Fixed salary for teachers employed otherwise than as junior assistants under Sixth Schedule:—

Males—Minimum, £88, rising by six annual increments of £8 to a maximum of £136.

Females—Minimum, £64, rising by three annual increments of £6 8s. to a maximum of £83 4s.

Fixed salary for teachers employed as junior assistants under Sixth Schedule—

Males—£80 per annum, without increment.

Females—£64 per annum, without increment.

NOTE.—In addition to the fixed salary, a sum equal to one-half the amount of such salary is obtainable by way of results. Relieving teachers are paid an amount equal to one-half the amount of the fixed salary in lieu of results.

Pupil-teachers, Class I.—Salary, Males £50; Females, £40 per annum.

„ „ II. „ „ 40; „ 32 „

„ „ III. „ „ 30; „ 24 „

„ „ IV. „ „ 20; „ 16 „

Sewing Mistresses—Salary, £30 per annum.

844. The following is a statement of the number of male and female teachers of each class at the end of 1888, and their classification under the *Public Service Act* 1883:—

TEACHERS OF EACH CLASS, 1888.

Classification.			Head Teachers.		Assistants.		Pupil-teachers.	
			Males.	Females.	Males.	Female.	Males.	Females.
First class	...	...	38	...	...	...	17	247
Second class	...	...	37	...	...	38	37	182
Third class	...	...	89	...	38	42	43	185
Fourth class	...	...	330	4	46	77	66	305
Fifth class	...	...	824	481	110*	237†	...	...
Juniors	...	...	...	...	18	263	...	...
Total	...	...	1,318	485	212	657	163	919

NOTE.—In addition to the above, there were 480 sewing-mistresses.

* Including 38 relieving teachers.

† Including 30 relieving teachers.

Private
schools,
1873 to 1889.

845. The following table gives the number of private schools, and of the teachers and scholars connected therewith, according to the returns of the seventeen years, 1873 to 1889:—

PRIVATE SCHOOLS, 1873 TO 1889.

Year.*	Number of Schools.	Number of Instructors.	Number of Scholars.†
1873	888	1,841	24,781
1874	653	1,446	18,428
1875	610	1,509	22,448
1876	565	1,511	27,481
1877	645	1,646	28,847
1878	530	1,457	28,422
1879	585	1,656	35,873
1880	568	1,587	34,824
1881 (Census) ...	643	1,516	28,134
1882	645	1,553	34,062
1883	655	1,551	34,443
1884	670	1,638	35,773
1885	655	1,635	35,115
1886	665	1,645	34,787
1887	691	1,680	35,811
1888	749	1,812	37,823
1889‡	753	1,878	40,291

Private
schools,
1873 and
1889 com-
pared.

846. The figures in the first line of the table relate to the early part of the year in which the *Education Act* came into operation. Since then there appears to have been a falling-off of 135 in the number of private schools, but an increase of 37 in the number of instructors, and of 15,510 in the number of scholars.

Denomina-
tions of
private
schools.

847. For the last thirteen years a column has been placed in the schedule used for collecting the returns of private schools for the purpose of ascertaining to what religious sect, if any, each school was attached. This column was, on each occasion, filled, in a considerable number of instances, with the name of some denomination; but it is believed that this entry was frequently meant to indicate merely the religion of the principal teacher or proprietor of the school, and perhaps the principles on which the establishment was conducted, not that it was recognised as connected with his church, or was subordinate

* The statistics of private schools are generally collected in February and March. See next footnote.

† The numbers for 1881 are those returned by the census sub-enumerators as actually attending school on the 4th April of that year. The numbers given for other years are, or ought to be, those upon the school rolls at the time of the collector's visit, which is generally in February or March.

‡ The Education report for 1888-9 gives a return of only 741 private schools, but in these there were said to be 47,913 scholars, or 7,622 more than in the returns furnished to the Government Statist. The difference in the number of schools is said to be owing to the fact that a number of new schools were started at the beginning of 1889, which would appear in the returns furnished to the Government Statist but not in those collected by the Education Department. With reference to the scholars, it is stated that the figures in the Report represent the whole number which appeared on the school rolls during any portion of the year, whilst those furnished to the Government Statist represent the number on the rolls at the time of the collector's visit.

to the clergy thereof. The exceptions to this are believed to be most of the schools returned as Roman Catholic, Lutheran, and Jewish, and a few as of the Church of England, but scarcely any connected with other denominations. The following are the returns of the thirteen years:—

RELIGIOUS SECTS OF PRIVATE SCHOOLS, 1877 TO 1889.

Year ended March.	Total.	Religious Denomination.									
		Church of England.	Presbyterian.	Wesleyan.	Independent.	Lutheran.	Protestant (undefined).	Roman Catholic.	Jewish.	Other Sects.*	Not any or not stated.
SCHOOLS.											
1877 ...	645	41	4	2	1	3	9	111	2	...	472
1878 ...	530	47	4	7	...	3	7	115	4	...	343
1879 ...	585	62	7	6	1	4	1	179	3	2	320
1880 ...	568	75	6	5	1	3	1	163	2	2	310
1881 (Census)	643	57	10	5	1	10	17	187	3	1	352
1882 ...	645	58	8	3	...	3	14	180	2	2	375
1883 ...	655	61	8	4	...	5	...	175	2	4	396
1884 ...	670	56	13	2	1	5	...	182	2	3	406
1885 ...	655	48	11	3	2	4	...	172	2	2	411
1886 ...	665	40	5	3	2	4	...	182	2	3	424
1887 ...	691	27	5	3	1	4	...	175	2	2	472
1888 ...	749	30	5	3	1	6	...	185	2	2	515
1889 ...	753	27	3	3	...	6	...	186	2	2	524
TEACHERS.											
1877 ...	1,646	159	46	12	1	4	27	338	10	...	1,049
1878 ...	1,457	210	32	19	...	4	10	345	13	...	824
1879 ...	1,656	242	43	18	1	4	1	539	11	2	795
1880 ...	1,587	270	50	18	2	3	2	473	7	4	758
1881 (Census)	1,516	146	50	18	1	9	33	544	13	3	699
1882 ...	1,553	161	43	12	...	3	25	537	8	3	761
1883 ...	1,551	185	46	22	...	5	...	527	10	7	749
1884 ...	1,638	177	52	20	2	5	...	555	9	7	811
1885 ...	1,635	154	51	22	2	4	...	514	11	5	872
1886 ...	1,645	162	35	24	4	4	...	527	11	5	873
1887 ...	1,680	97	40	26	2	5	...	536	6	4	964
1888 ...	1,812	124	37	25	2	6	...	568	4	4	1,042
1889 ...	1,878	127	31	25	...	6	...	592	4	4	1,089

* Including, in 1879, 2 Baptist schools, with 2 teachers and 30 scholars; in 1880, 1 Unitarian school, with 2 teachers and 16 scholars, and 1 Moravian school, with 2 teachers and 40 scholars; in 1881, 1 school, connected with the "Brethren," with 3 teachers and 26 scholars; in 1882, 1 school connected with the "Brethren," with 2 teachers and 52 scholars, and 1 school connected with the Moravians, with 1 teacher and 13 scholars; in 1883, 2 Baptist schools, with 4 teachers and 45 scholars, 1 school connected with the "Brethren," with 2 teachers and 52 scholars, and 1 school connected with the Moravians, with 1 teacher and 16 scholars; in 1884, 1 Baptist school, with 2 teachers and 18 scholars; 1 school connected with the "Brethren," with 4 teachers and 55 scholars, and 1 school connected with the Moravians, with 1 teacher and 14 scholars; in 1885, 1 school connected with the "Brethren," with 4 teachers and 77 scholars, and one school connected with the Moravians, with 1 teacher and 16 scholars; in 1886, 1 school connected with the Bible Christians, with 1 teacher and 5 scholars, 1 school connected with the "Brethren," with 3 teachers and 95 scholars, and 1 Moravian school, with 1 teacher and 18 scholars; in 1887, a school connected with the "Brethren," with 3 teachers and 83 scholars; and 1 with the Moravians, with 1 teacher and 22 scholars; in 1888, 1 school connected with the "Brethren," with 3 teachers and 74 scholars; and 1 with the Moravians, with 1 teacher and 15 scholars; in 1889, 1 school connected with the "Brethren," with 3 teachers and 91 scholars; and 1 with the Moravians, with 1 teacher and 9 scholars.

RELIGIOUS SECTS OF PRIVATE SCHOOLS,
1877 TO 1889—continued.

Year ended March.	Total.	Religious Denominations.										
		Church of England.	Presbyterian.	Wesleyan.	Independent.	Lutheran.	Protestant (undefined).	Roman Catholic.	Jewish.	Other Sects. *	Not any or not stated.	
SCHOLARS.												
1877	...	28,847	1,491	612	221	20	68	338	13,430	270	...	12,397
1878	...	28,422	1,730	638	333	...	142	123	15,631	293	...	9,532
1879	...	35,873	2,055	744	314	22	183	57	23,225	231	30	9,012
1880	...	34,824	2,200	793	327	23	108	69	22,514	190	56	8,544
1881 (Census)	...	28,134	1,582	836	248	13	206	449	16,430	276	26	8,068
1882	...	34,062	1,596	947	199	...	121	380	20,377	196	65	10,181
1883	...	34,443	2,061	914	319	...	170	...	20,340	178	113	10,348
1884	...	35,773	1,996	1,010	288	18	142	...	21,019	180	87	11,033
1885	...	35,115	1,728	1,019	363	28	126	...	20,369	173	93	11,216
1886	...	34,787	1,466	799	387	39	129	...	20,315	133	118	11,401
1887	...	35,811	1,301	751	389	33	128	...	20,854	93	105	12,157
1888	...	37,823	1,504	761	464	26	196	...	21,461	59	89	13,323
1889	...	40,291	1,425	691	437	...	194	...	22,696	79	100	14,669

Proportion
of denomi-
national
schools.

848. By the figures relating to 1889 it may be ascertained that, in that year, 229 private schools or 30 per cent., employing 789 instructors or 42 per cent., and educating 25,600 children or 64 per cent., of the total numbers claimed to be connected with some religious denomination; also that 22,696 children, or about 56 per cent. of the total number attending private schools, or 89 per cent. of the number attending schools connected with some religious sect, were being educated in schools claiming connexion with the Roman Catholic church.

Proportion
of other
children
educated by
each sect.

849. The number of children at the then school age belonging to each religious denomination was ascertained from the census returns, and the amount of rudimentary education they respectively possessed will shortly be referred to.† In the following table the numbers are collated with the numbers who attended the schools connected with the same denomination on the census day, and the proportion of the latter to the former is also shown:—

* See footnote on preceding page.
† See paragraph 869 et seq. post.

**CHILDREN OF EACH SECT ATTENDING PRIVATE DENOMINATIONAL
SCHOOLS ON CENSUS DAY, 1881.**

Religious Denomination.	Children between 6 and 15 years of age.		
	Total Number of each Denomination living (3rd April, 1881).	Attending Denominational Schools on School Census Day (4th April, 1881).	
		Number.	Percentage of Total Number living.
Church of England ...	68,202	988	1.45
Presbyterian ...	29,848	491	1.65
Wesleyan ...	24,270	138	.57
Independent ...	4,431	13	.29
Lutheran ...	1,816	199	10.96
Roman Catholic ...	49,982	13,442	26.89
Jewish ...	1,000	248	24.80

850. Judging from the results of the census enumeration, it appears that, so far as children at the then school age are concerned, the Roman Catholics educate in their own schools nearly 27 per cent., the Jews nearly 25 per cent., and the Lutherans nearly 11 per cent., of the whole numbers belonging to their respective denominations. Compared with these, the proportions of their children educated by the other denominations are very small indeed.

Proportions
educated
by Roman
Catholics,
Jews, and
Lutherans.

851. The male teachers in private schools returned in 1889 were fewer by 11, and the female teachers more numerous by 77 than those in 1888, the result being a total increase of 66. The number and sexes of the teachers returned in the year under review and the previous one are compared in the following table:—

Teachers in
private
schools.

TEACHERS IN PRIVATE SCHOOLS, 1888 AND 1889.

Year.				Males.	Females.	Total.
1888	...	...	...	448	1,364	1,812
1889	...	...	...	437	1,441	1,878
Increase	...	...	...	...	77	66
Decrease	...	...	...	11	...	...

852. In private schools connected with religious bodies the number of scholars entrusted to each teacher is generally larger than in purely secular institutions. The following are the proportions as derived from the returns of 1889:—

Scholars to
each teacher
in denomi-
national
and other
schools.

In schools attached to religious bodies there was 1 teacher to 32 scholars.

„ not attached „ „ „ 13 „

Scholars
to each
teacher in
schools of
different
sects.

853. The authorities of the different religious bodies vary greatly in regard to the number of scholars they deem it expedient to entrust to each instructor. Thus, whilst in the Church of England schools the average is eleven scholars to each teacher, in the Roman Catholic schools it is as high as 38 to each. The following are the proportions of scholars to each teacher in the schools attached to the different sects :—

In schools of the Church of England there was 1 teacher to 11 scholars.

„	Wesleyans	...	„	„	17	„
„	Jews	...	„	„	20	„
„	Presbyterians	...	„	„	22	„
„	Lutherans	...	„	„	32	„
„	Roman Catholics	...	„	„	38	„

Scholars
to each
teacher in
public and
denomina-
tional
schools.

854. In State schools the mean number of scholars in average attendance committed to the charge of each teacher is 30.* This is higher than the number so committed in the schools of any of the religious sects except the Lutherans and the Roman Catholics.

Sexes of
scholars in
private
schools.

855. In 1889, as compared with 1888, there was an increase of 1,533 in the number of boys, and an increase of 935 in the number of girls, in private schools. The following are the numbers according to the returns of the years referred to :—

SEXES OF SCHOLARS IN PRIVATE SCHOOLS, 1888 AND 1889.

Year.	Boys.	Girls.	Total.
1888	17,863	19,960	37,823
1889	19,396	20,895	40,291
Increase	1,533	935	2,468

Proportion
of male to
female
scholars.

856. The number of girls educated in private schools is greater than that of boys. The proportion was 112 girls to every 100 boys in 1888 and 108 to every 100 in 1889. In State schools the reverse is the case, as has been already shown,† the proportion being only 92 girls to every 100 boys.

Ages of
scholars.

857. The age prescribed by law as that at which children are to attend school, unless there be some reasonable excuse for their not doing so, is from 6 to 14 years last birthday, both inclusive.‡ The following are the numbers in both descriptions of schools at above and below those ages during the past year :—

* If workmistresses be excluded, this number would be increased to 34.
† See paragraph 820 ante.
‡ This has now been changed to from 6 to 12 years last birthday.

AGES OF SCHOLARS, 1888.

Ages.	State Schools (distinct children).	Private Schools.	Total.
Under 6 years	24,445	6,096	30,541
6 to 15 years (school age)	163,595	29,768	193,363
15 years and upwards ...	9,075	4,427	13,502
Total	197,115	40,291	237,406

858. In public schools, 83 per cent. of the scholars were at the school age, whilst $4\frac{1}{2}$ per cent. were above and $12\frac{1}{2}$ per cent. were below it. In private schools, only 74 per cent. of the scholars were at the school age, whilst 11 per cent. were above and 15 per cent. were below it. Proportion of scholars at school age.

859. The number of children of all ages receiving education in Victoria during any portion of the year 1888 may be stated as follows :— Scholars, 1888.

CHILDREN OF ALL AGES RECEIVING EDUCATION, 1888.

Being educated—

In State schools (distinct children)	197,115
In private schools	40,291
In Government industrial and reformatory schools ...	300
At home (census figures)	11,547
Total	249,253

860. Of these children the following were at the school age* :—

Scholars at school age.

CHILDREN AT SCHOOL AGE RECEIVING EDUCATION, 1888.

Being educated—

In State schools	163,595
In private schools	29,768
In Government industrial and reformatory schools ...	162
At home (census figures)	5,800
Total	199,325

861. The estimated total number of children at the school age* living in Victoria in 1888 was 206,247. The following, therefore, will be the number and percentage receiving and not receiving education :— Children receiving and not receiving instruction.

CHILDREN AT SCHOOL AGE RECEIVING AND NOT RECEIVING EDUCATION, 1888.

	Numbers.	Per Cent.
Being educated	199,325	96.65
Not being educated	6,922	3.35
Total at school age	206,247	100.00

* The school age was altered whilst these pages were passing through the press. See footnote to paragraph 786 ante.

Proportion
of children
being
educated.

862. By the foregoing figures it would appear that 199,325 children, or over 96½ per cent. of the children at the school age* living in Victoria, were being educated during some portion of the year, of whom 163,595, or 79 per cent., were at State schools. These are the "distinct children," whose number it will be remembered has not been ascertained by actual counting but by an estimate made by the Education Department. If the number of children in average attendance be used in the computation instead of the estimated distinct children, the number of State school children at the school age would be reduced to about 107,000,† and the total number at that age receiving education in the whole colony would be reduced to 142,730, whilst the number of children not receiving education would be increased to 63,517.

Proportion
of children
not attend-
ing full
time.

863. If the distinct children have been accurately estimated, the total number receiving education during some portion of the year would be correct also, but it should be clearly understood that the stay of some of these in the schools is so short that practically they are not being educated at all. It has already been shown that the prescribed number of days in each quarter, viz., 30, was not reached in the case of 27 per cent. of the children who attended State schools during some portion of one or more of the quarters of 1888.‡

Colleges,
grammar
schools, etc

864. Six of the schools included with the private schools are called colleges or grammar schools. Five of these at some former period received sums of money and grants of land from the Government for the erection of school buildings, but no State assistance has been given them of late years. They receive male pupils only, and are all attached to some religious denomination; and in connexion with several of them there are exhibitions, chiefly with the view of assisting the ablest scholars to complete their education at the University. The following is a return, derived from statements furnished by the authorities, of these institutions for the year under review:—

* The school age was altered whilst these pages were passing through the press. See footnote to paragraph 786 *ante*.

† Eighty-three per cent. of the whole number attending have been assumed to be at the school age. This was the proportion of distinct children at the school age as estimated by the Education Department.

‡ See paragraph 82 *ante*

COLLEGES AND GRAMMAR SCHOOLS,* 1888.

Name of Institution.	Religious Denomination.	Amount received towards Building in former years.	Number of Masters.	Number of Scholars.
Grammar School, Melbourne	Church of England	£ 13,784	17	330
Scotch College, „	Presbyterian Church	6,445	13	315
Wesley „ „	Wesleyan Methodist	2,769	10	172
St. Patrick's „ „	Roman Catholic ...	10,002	8	109
St. Francis Xavier College, Kew	„ ...	...	14	160
Grammar School, Geelong ...	Church of England	7,000	7	77
	Total ...	40,000	69	1,163

865. The returns of the census of 1881 showed 194,979 children at the school age,† of whom 97,722 were boys and 97,257 were girls. The following are the numbers of these who could read, who could also write, and who could not read:—

Education at school age, 1881.

EDUCATION OF CHILDREN AT THE SCHOOL AGE, 1881.

	Boys.	Girls.
Could read	92,362	92,489
Could write	82,714	83,708
Could not read	5,360	4,768

866. The present *Education Act* came into operation twenty-one months after the census of 1871 was taken, and thus the returns of that census and of the census of 1881 afford an opportunity of comparing the state of children's education before and since the passing of that Act. Such a comparison is made in the following table, the

Education at school age, 1871 and 1881.

* At the Melbourne Grammar School there are three Council Scholarships of the annual value of £21 for boys under 14, open only to members of the school, and tenable at it for three years; and two exhibitions of the annual value of £20, tenable for two years, open to the competition of boys proceeding to the Melbourne University, whose names have been for the two previous years on the school register, and who have passed the matriculation examination with credit; the head master also offers every year for open competition two scholarships of the annual value of £30 and £25 respectively, four exhibitions—two of the value of £15 and two of £10; and there is a Witherby scholarship, which entitles the holder to exemption from school fees for three years. In connexion with the Scotch College, the following scholarships were announced to be competed for early in February, 1889:—Scholarships of 20 guineas and 10 guineas each (according to merit), open to all boys who have passed the matriculation examination, to be awarded for excellence in any one or more of the four groups of subjects:—Classics, Mathematics, French and German, English and History. There were two different examinations, the standard required for the higher being that for Honors at Matriculation, and for the lower that for the ordinary pass; also scholarships of £10 each, open to any boys who may have gained one of the State-school exhibitions or scholarships in 1888. Subjects of examination same as those prescribed by Education Department. In connexion with the Wesley College, there is a scholarship called the “Draper Scholarship”—established in memory of the late Rev. D. J. Draper, who perished in the *London*—of the value of £25, tenable for one year; two “Walter Powell Scholarships” founded by Mrs. Powell, in memory of her late husband, of the value of £40 each, payable in two annual instalments of £20; also the “Waugh,” the “Eggleston,” and “Corrigan” scholarships, each of the value of 16 guineas, tenable for two years. At the Geelong Grammar School there is an exhibition, given by Mrs. F. W. Armytage, of the value of £60, tenable for two years on condition that the holder shall be a resident student of Trinity College, Melbourne, and shall have been for two years previously a pupil of the Grammar School; the head master also receives one son of a clergyman of the Church of England as a resident boarder, exempt from all school fees and cost of residence. At St. Francis Xavier's College scholarships to the aggregate value of 100 guineas were announced to be competed for in February, 1889.

† Or 6 to 15, now changed to 6 to 13 years.

education of children being reduced to a common standard, the numbers per 10,000 being taken as such at both periods:—

EDUCATION OF CHILDREN AT THE SCHOOL AGE, 1871 AND 1881.

Educational Attainment.	Proportions per 10,000 living at the School Age (6 to 15 years*).					
	Boys.		Girls.		Both.	
	1871.	1881.	1871.	1881.	1871.	1881.
Could read	8,955	9,451	9,045	9,510	9,000	9,481
Could write	7,072	8,464	7,124	8,607	7,098	8,535
Could not read	1,045	549	955	490	1,000	519

Improve-
ment in ten
years. 867. In 1881, as compared with 1871, an increase is observed in the number of both sexes able to read, but a much larger one in those able to write, the increase of the former (the returns of the two periods being reduced to a common standard) being about 5 per cent., whilst that of the latter was over 20 per cent. ; at the same time, the decrease of those unable to read was 48 per cent.

Education of
boys and
girls. 868. It will be noticed that at both periods rudimentary education was rather more common amongst girls than boys, the numbers of the former able to read and to write being greater, and the numbers unable to read being smaller, than those of the latter.

Education
of children
of different
denomina-
tions, 1881. 869. The degree of education at the school age* is found to differ according to the religious denomination. In the following table (which has been based upon the returns of the last census) the numbers of and proportionate amount of primary instruction possessed by the children belonging to each of the principal sects are shown:—

EDUCATION OF CHILDREN OF DIFFERENT RELIGIOUS
DENOMINATIONS,† 1881.

Religious Denominations.	Numbers between 6 and 15 years old who—			Proportions per 10,000 Living between 6 and 15 years old who—		
	Could Read.	Could Write.	Could not Read.	Could Read.	Could Write.	Could not Read.
Church of England	63,211	57,431	3,327	9,500	8,631	500
Presbyterians	28,218	25,633	1,135	9,614	8,733	386
Methodists	25,808	23,664	949	9,645	8,844	355

* Now changed to from 6 to 13 years.
† This table includes the few Chinese and Aborigines who were at the school age, but is exclusive of those whose education was unspecified. The latter numbered as follow :—Members of the Church of England, 1,664 ; Presbyterians, 495 ; Methodists, 511 ; Bible Christians, 46 ; Independents, 93 ; Baptists, 101 ; Lutherans, 43 ; Other Protestants, 48 ; Roman Catholics, 1,043 ; Jews, 13 ; Residue, 252. Total, 4,309.

EDUCATION OF CHILDREN OF DIFFERENT RELIGIOUS
DENOMINATIONS,* 1881—*continued*.

Religious Denominations.	Numbers between 6 and 15 years old who—			Proportions per 10,000 Living between 6 and 15 years old who—		
	Could Read.	Could Write.	Could not Read.	Could Read.	Could Write.	Could not Read.
Bible Christians ...	1,677	1,543	53	9,694	8,919	306
Independents ...	4,193	3,900	145	9,666	8,990	334
Baptists ...	4,219	3,913	160	9,635	8,936	365
Lutherans ...	1,658	1,529	115	9,352	8,624	648
Other Protestants ...	1,710	1,589	77	9,569	8,892	431
Total Protestants...	130,694	119,202	5,961	9,564	8,723	436
Roman Catholics ...	45,630	40,053	3,306	9,325	8,185	675
Jews ...	954	920	33	9,666	9,321	334
Residue ...	3,310	2,953	257	9,280	8,279	720
Grand Total ...	180,588	163,128	9,557	9,500	8,577	500

870. According to the table, the children of the Bible Christians, in proportion to their numbers, stood higher than those of the members of any of the other denominations, so far as the ability to read was concerned; but the children of the Jews stood the highest in reference to the ability to write, in which respect the children of the Independents and Baptists also surpassed those of the Bible Christians. The children of the Roman Catholics were apparently less instructed, both in reading and writing, than any of the others; the next less instructed being the children of the Lutherans, and then those of the members of the Church of England. Denomina-
tions
compared.

871. The school age prescribed by law differs in the various Australian colonies.† In scarcely one of them, strange to say, were the census returns compiled in such a manner that the state of education at its own school age could be ascertained from the published tables, much less compared with that obtaining at the school age of this colony. All of the colonies, however, published their education returns in quinquennial periods, so the period from 5 to 15 years is adopted for Victoria, as well as for the others, as an age at which the success of the respective educational systems can be conveniently Education
of children
in Austral-
asian
colonies.

* See footnote (†) on preceding page.

† When the census of 1881 was taken the prescribed school age was in Victoria from 6 to 15 years, in New South Wales from 6 to 14 years, in Queensland from 6 to 12 years, in South Australia and New Zealand from 7 to 13 years, and in Tasmania from 7 to 14 years.

judged. The following figures measure the education of the children of each colony at that age, the colonies being arranged in order:—

EDUCATION OF CHILDREN IN AUSTRALASIAN COLONIES, 1881.

Colony.	Proportions per 10,000 Children (5 to 15 years) Living who—		
	Could Read.	Could Write.	Could not Write.
1. Victoria	9,088	7,977	912
2. New Zealand	8,254	6,851	1,746
3. South Australia	8,138	6,956	1,862
4. Queensland	8,082	6,676	1,918
5. New South Wales	7,832	6,495	2,168
6. Western Australia	7,809	6,075	2,191
7. Tasmania	7,632	6,160	2,368

Colonies
compared.

872. It will be observed that Victoria stood easily at the head of the list, being much in advance of all the other colonies, both as regards reading and writing. As the arrangement is in accordance with the numbers able to read, South Australia is placed below New Zealand, and Tasmania below Western Australia; but the order in these cases would have been reversed had the arrangement been in accordance with the numbers able to write, as the proportion of such was greater in South Australia than in New Zealand, and greater in Tasmania than in Western Australia.

Adult
education
1881.

873. The persons above 15 years of age may be designated adults. The following are the number of those of either sex returned as able to read, as able also to write, and as uninstructed:—

EDUCATION OF ADULTS (15 YEARS AND UPWARDS), 1881.

	Males.	Females.
Could read	263,830	236,380
Could write	256,315	223,901
Could not read	9,238	8,867

Adult
education
in Austral-
asian
colonies.

874. In compiling their census returns of education, most of the colonies of this group excluded the Aborigines, but several of them did not separate the Chinese, or distinguish their educational attainments so as to admit of their being accurately deducted from the remainder of the population; and as the Chinese were set down as illiterate if not able to read English, which few of them were able to do, the view which such colonies gave of the state of adult education within their borders was not so favourable as it should have been. To rectify this, and to enable fair comparison to be made between the

different colonies, it has been assumed in these cases that the bulk of the Chinese are included amongst the adults unable to read, and they have been deducted therefrom accordingly, so that the state of adult education in all the colonies is given, as nearly as possible, exclusive of Chinese and Aborigines. Upon the number so obtained, the following proportions have been based :—

EDUCATION OF ADULTS IN AUSTRALASIAN COLONIES, 1881.

Colony.	Proportions per 10,000 Adults (15 years and upwards) Living who—		
	Could Read.	Could Write.	Could not Read.
1. New Zealand	9,699	9,390	301
2. Victoria	9,651	9,265	349
3. South Australia	9,619	9,179	381
4. Queensland	9,446	8,918	554
5. New South Wales	9,298	8,747	702
6. Western Australia	9,004	8,362	996
7. Tasmania	8,897	8,153	1,103

875. Victoria, it will be observed, is no longer at the top of the list, but is below New Zealand, although only slightly so; South Australia, in like manner, being slightly below Victoria. New South Wales, as in the case of the education of children, occupies the fifth place on the list, and stands below all the other colonies except Western Australia and Tasmania. Colonies compared.

876. Mr. Andrew Carnegie draws attention to the large amount spent annually by European States upon armaments as compared with the much smaller amounts they spend upon education, and points out to what a remarkable extent this contrasts with the practice in United States, where much less is spent on the former than on the latter. The contrast with the Victorian practice is even more marked, as the amount spent on armaments in proportion to that spent on education is much less here than in the United States. The following are Mr. Carnegie's figures,* to which the figures for Victoria for an average of five years have been added :— Expenditure on armaments and education in various countries.

* See *Triumphant Democracy*, by Andrew Carnegie, page 96, Sampson Low & Co., London, 1887.

EXPENDITURE ON ARMAMENTS AND EDUCATION IN VARIOUS COUNTRIES.

Countries.	Annual Expenditure on—	
	Armaments.	Education.
	£	£
United Kingdom	28,900,000	6,685,000
France	35,000,000	3,200,000
Germany	20,000,000	6,900,000
Russia	33,000,000	1,000,000
Austria	13,400,000	2,900,000
Italy	18,900,000	1,100,000
Spain	6,300,000	1,200,000
Other European States	8,300,000	2,100,000
United States	9,400,000	18,600,000
Victoria	204,000	618,000

Relative proportions spent on armaments and education.

877. It will be found, from the figures in this table, that whilst Russia spends 33 times, Italy 17 times, France 11 times, Spain $5\frac{1}{4}$ times, Austria $4\frac{2}{3}$ times, the United Kingdom $4\frac{1}{3}$ times, Germany nearly 3 times, and other European States 4 times as much on armaments as on education, the United States spends twice, and Victoria no less than three times as much upon education as upon armaments.

School of Mines, Sandhurst.

878. Schools of Mines have been established at Sandhurst, Ballarat, and Maryborough. The following account of the first named has been supplied for this work by Professor J. B. Lillie Mackay, A.K.C.L., F.L.S., F.C.S., Scientific Director of the School and Curator of the Museum :—

“The School of Mines and Industries, Sandhurst, has now been established over sixteen years (having been formally opened in April, 1873), and although the buildings are extensive and imposing, the institution has outgrown its accommodation, and the efforts recently made to secure an adjacent site and to erect enlarged premises are, through the liberality of the Government, shortly to be brought to a successful issue. A new lecture hall, class-rooms, and more thoroughly equipped and commodious chemical lecture theatre, which were urgently needed, were last year designed, and the buildings commenced last February. The foundation stone of the new wing was laid on 29th May, 1889, by the Hon. C. H. Pearson, M.A., LL.D., M.L.A., Minister of Education, and the structure has proceeded as far as the second storey. The valuation of the buildings and effects amounts to £13,087. The institution receives a Government grant of £3,000 per annum for maintenance, and this sum is materially supplemented by class fees, as well as the Technological Commission grant for pupils in drawing, also by fees for assays and analyses which are conducted for the public. There is a large teaching staff (numbering fourteen); and although prominence is given to subjects connected with mining pursuits, such as geology, mineralogy, chemistry, metallurgy, mechanics, and surveying, yet other subjects of natural and physical science are taught for the benefit of the community, besides mechanical, geometrical, and architectural drawing and some extra subjects. Workshops for practical instruction in the mechanical arts and trades—*e.g.*, wood

carving, carpentry, engineering, smith and iron work, brass casting, and metal work generally—were, in October, 1888, successfully revived. Here, there is a steam engine to drive lathes, grindstone, etc., and a good forge with bellows. Two instructors have been appointed for carpentry and metal working respectively, and all the 20 benches are already taken up. The chemical and metallurgical laboratories are open every day for instruction and practice in gold and other assays and in analytical practice. There is a large telegraphy class, the Sandhurst school being one of the main feeders for telegraphic operator positions in the colonies; while the art classes in connexion with the School of Design are numerous attended. Altogether there were 755 students on the roll in the session of 1888,* some coming from great distances, *e.g.*, Queensland, New South Wales and South Australia. Special facilities are given to country school teachers, who are enabled to travel by rail at nominal fares.† There are periodical examinations conducted by honorary examiners, and certificates of proficiency, as well as medals, are granted to distinguished students. The fees are merely nominal.

“A meteorological observatory is attached to the school, from which observations on the fluctuations of temperature and pressure, direction and force of the wind, the amount of rainfall, cloud, etc., are despatched every morning by telegram to the Government Astronomer (R. L. J. Ellery, Esq., C.M.G., F.R.S.). Daily weather reports and prognostications are also sent to the three local papers. The instruments are placed in a clear space in the gardens, and observations are taken four times a day, *viz.*, at 9 a.m., 12 noon, 3 p.m., and 9 p.m. The Director of the School has charge of this department. There is likewise a valuable museum in connexion with the school, of which a brief notice is appended.

“In the Museum attached to the School of Mines there is a good collection of Natural History objects—Mammals, birds, reptiles, insects, crustaceans, echinoderms, recent shells, sponges, etc.; and a large number of specimens of rocks, minerals, ores, and gems, as well as fossils typical of the different geological strata. Besides these, thousands of specimens illustrative of the geology, mineralogy, and the living and fossil flora and fauna of the globe. There are some valuable examples of the arts of the aborigines of Australia and the islands of the Pacific, and a great variety of native weapons from Fiji, New Guinea, and Western Australia. The walls are hung with geological maps, and sections and sketches of scenery, exhibiting some of the striking features of the rock formations in Australia. One department is of more than common interest, including, as it does, models of mining machinery and mining plant, showing to scale the methods of timbering shafts, etc., etc., the application of contrivances to prevent over-winding, the action of safety cages, etc. Numerous facsimiles of gold nuggets and cubes representing the yield of gold from the various mines in the district are exhibited; besides plans and photographs of reefs extension, crushing works, etc.

“As many as 1,245 specimens and articles were presented during the year from various parts of the colony, and the attendance of visitors numbered over 35,000 persons. The space for the reception of donations is shortly to be doubled.

“An attractive little court was prepared in the Melbourne Centennial International Exhibition, showing specially-taken photographs of the underground workings of the Sandhurst mines, as well as cases of specimens, and a trophy of cubical gilded models illustrative of the yields of gold from the chief mines of the district, and received a ‘first order of merit’ from the jurors. Most of these exhibits have been forwarded to the Paris Exposition, 1889.

“The curator will be glad to receive donations to the Museum of animals, curios, or any objects of interest; or to effect exchanges with other museums, there being an abundance of graptolites in the rocks of the neighbourhood, as well as numerous animals in duplicate.

“The Museum is open daily from Monday until Friday, inclusive, from 10 a.m. until 6 p.m.; and every Saturday from 10 a.m. until 9 p.m.

* A remarkable growth has taken place in the school during the past two years, the roll having been more than doubled.

† No less than 2,267 railway tickets were issued at the Registrar's office during the past twelve months, covering distances of from 12 to 60 miles.

"The institution is chiefly controlled by an Administrative Council, which includes a President, Vice-President, and ten other members. The Visitor for the time being is His Excellency Sir William Robinson, Acting-Governor of the colony. There is a Registrar to transact the business of the institution, while the whole school is under the supervision of a Director appointed by the Administrative Council. Prospectuses will be forwarded free on receipt of addresses.

"Popular science lectures are given monthly, or more frequently, during the autumn and winter (admission free), and the attendance on some occasions is very large. The regular lectures on geology, mineralogy, and principles of mining are delivered by the Director.

"Connected with the school is a local science society under the presidency of Dr. P. H. MacGillivray, F.L.S. (present president of the school). It was resuscitated under favourable auspices in April, 1888, and now, after 15 months, numbers no less than 230 members, some of whom contribute valuable papers. The aim of the society is to foster greater interest in Natural and Physical Science. The Director of the School of Mines (where the meetings are regularly held) acts as the Honorary Secretary."

School of
Mines,
Ballarat.

879. Mr. Andrew Berry, Registrar of the School of Mines at Ballarat, has supplied the following account of that institution:—

"The School of Mines, Ballarat, was opened on the 26th October, 1870.* Through the liberality of Parliament, this school is in a position to supply technical instruction on an extended scale. Classes, conducted by eleven lecturers, including two professors, are formed in mathematics, mining, land, and engineering surveying; applied mechanics and mechanical engineering; mechanical, freehand, architectural, and model drawing; metallurgy, and assaying; mineralogy, and geology; natural philosophy; elementary inorganic, organic, applied, analytical, and pharmaceutical chemistry; botany, materia medica, pharmacy, physiology, and telegraphy; at a cost to the student of from five shillings to three guineas per term of ten weeks for ordinary evening and day classes respectively. Provision is made for students whose means are such as to prevent them from paying even the small fees mentioned; and for those who can afford to devote their whole time to instruction, arrangements are made for training indentured students for the scientific professions. The academical year is divided into four terms, each of ten weeks' duration, and at the end of each term examinations, by means of printed questions and otherwise, are held at the school in scientific and technical subjects, both theoretical and practical. Any person, whether or not a student at the school, may present for examination, and if the report of the examiners be favourable, the council grant a certificate. Up to the end of the year 1888, 583 certificates had been thus awarded, embracing the subjects of mathematics, chemistry, geology, mineralogy, materia medica, botany, etc., also testifying to the competency of the successful candidates as captains of shifts, managers in mines, assayers, telegraphists, engineers, and engine-drivers. The Museum contains collections of minerals, rocks, and technological products, shells, stuffed birds, etc.; geological maps, plans, and sections of mines, etc. The library, accessible to students, contains books of reference, and is kept supplied with current numbers of selected technical English, continental, and American journals. The museum and library are open to the public daily, free. In connexion with the Assay and Metallurgical Department there is a mining laboratory equipped with machinery and appliances requisite for the reduction of quartz and practical treatment of auriferous mine products by the usual processes of crushing, washing, amalgamating, roasting, etc., and a plant for the treatment of gold ores by the Newbery-Vautin chlorination process is now in course of erection. The school possesses the most complete apparatus in the southern hemisphere for testing vacuum and steam pressure-gauges. A meteorological station has been established at the school, and the usual daily observations of rainfall, temperature, atmospheric

* It is now an integral part of the University of Melbourne. A Statute for the affiliation of the School to the University was passed by the Senate in April, 1887, which provided that only matriculated students of the University of Melbourne shall be admitted to the privileges conferred by the affiliation.

pressure, etc., are regularly recorded and forwarded to the Government Astronomer. Standing at an elevation of 1,420 feet above sea-level, the meteorological observations will, it is expected, prove useful auxiliaries to Melbourne work. During the year 1888 the average number of students attending practical classes was 329, and at the elementary science lectures delivered weekly in State schools the total average attendance was 828 pupils. Free science classes in elementary, agricultural, and industrial chemistry, botany, physics, mineralogy, geology, and physiology are now established in connexion with the State schools; teachers attending lectures on Friday evenings and Saturdays, and scholars on days appointed. Half-yearly examinations of these pupil classes are held, and free instruction scholarships, tenable for one year, are awarded to such as distinguish themselves. The total receipts from all sources for the year were £6,330 19s. 10d., of which the sum of £3,750 was from the Government; and the expenditure amounted to £7,041 2s. 10d."

880. The following account of the Maryborough District School of Mines, Industries, and Science has been supplied by Professor W. E. Matthews, F.L.S., F.C.S., Lond., Director of the School and Professor of Natural Science:—

Mary-
borough
School of
Mines.

"The Maryborough District School of Mines, Industries, and Science was opened on 21st January, 1889. Mr. T. R. L. Austin, Head-master of the Craigie State School, is the founder of this institution; its establishment being due, almost entirely, to his energetic and persevering efforts for over two years previous to the opening of the school. A sum of money having been collected in the district towards the establishment of the school, the Government granted £400 for maintenance in November, 1888, and the Council decided to open the School in the old Town Hall buildings, rented for the purpose from the Borough Council. During the first term ending 31st March, 1889, eighty-five students were enrolled, and classes were formed and conducted by an efficient teaching staff of ten lecturers and instructors, including the director and assistant demonstrator. At the end of the second term, 30th June, over one hundred students were attending the school. The year is divided into four terms, each of ten weeks' duration, and the term fees are small enough to bring the teaching of the school within the reach of everyone. Classes are now held in assaying and metallurgy; analytical and applied chemistry; mineralogy and geology; mine and land surveying; plotting and computing; engine driving; mechanical and architectural drawing; botany and materia medica; microscopy; telegraphy; geometry; freehand, linear, perspective, and model drawing; painting in oil and water colours; shorthand and engraving.

"Owing to the increasing number of students it has been found necessary to provide more accommodation and larger class-rooms. Through the liberality of the Government, the Council expect to be able to proceed with the erection of new buildings within the next few months. The new buildings will provide sufficient class-rooms, laboratories and workshops for the wants of practical students. It is proposed to form classes for practical instruction in engineering, carpentry, building construction, and other mechanical arts.

"Early morning lectures and classes are held during the summer sessions for students engaged during the day-time, and the railway department allow students' tickets to be issued at the school. These tickets are available for any distance within a radius of sixty miles, and the time-tables for classes have been so arranged as to enable students to avail themselves of the ordinary trains. Field classes are formed for practical study in geology, mineralogy and botany.

"Certificates are granted to students who pass examinations as mining engineers, mining surveyors, assayers, captains of shift, underground manager, engineer, or in any scientific subjects.

"The school museum contains a large number of specimens of rocks, minerals, and ores, and through the kindness of the Trustees of the Public Library, a loan collection of standard works of reference has been placed in the Library."

881. Thirty-one Schools of Art and Design have been established at various places in Victoria in connexion with a Royal Commission

Schools of
Design.

for promoting technological and industrial instruction.* The subjects taught comprise practical geometry; mechanical and architectural drawing; isometrical, perspective, and freehand drawing; figure drawing; ornamental drawing from models, flat examples, and from nature. Each school receives 2s. 6d. from Government for every pupil who attends at least eight times in one quarter, besides which, fees, varying from 1s. to 10s. 6d. per quarter for one lesson a week, are paid by pupils. The number of teachers on the 31st December, 1888, was 79, and the number of pupils on the rolls was 2,174, of whom 1,514, or about two-thirds, had attended eight or more times during the quarter ended with that day. An exhibition of the works of pupils is held yearly in Melbourne, and local exhibitions are held in other towns.

Melbourne
Public
Library.

882. The buildings of the Melbourne Public Library have cost from first to last £111,604, and are still unfinished. These funds were provided by Government, as also were further moneys, amounting, with the sum just named, to a total of £447,827, of which £16,721 was received by the trustees during the year under review. The private contributions, consisting of books, pamphlets, maps, newspapers, etc., have amounted in all to 402,100, of which 207,730 were presented to the institution, and the remainder were deposited under the *Copyright Statute*. The estimated value of these contributions is £23,000. The total number of volumes, pamphlets, etc., in the library at the end of 1888 was 230,739. It is open to the public, without payment, on week days between the hours of 10 a.m. and 10 p.m., and was visited during the year by 405,390 persons. A dictionary catalogue, which it is hoped will greatly aid readers to find the books they want with ease and certainty, has been compiled by the librarian and his assistants. The trustees report that, of 4,324 volumes added to the institution in 1888, 3,072 were donations; including the library of the late Sir John O'Shanassy (consisting of 2,013 volumes in all departments of literature), presented by his son, Mr. Matthew O'Shanassy. This is the largest gift of books ever made to the trustees, and is of special interest, having been purchased by subscription for presentation to Sir John O'Shanassy in recognition of his public services. A collection of books exhibited in the German Court at the Melbourne Centennial Exhibition was also presented by Herr Wermuth, the Chief Commissioner from Germany to that

* A digest of some of the evidence taken before the Royal Commission on Technical Instruction in Great Britain, 1881 to 1884, together with valuable comments thereon by the Hon. C. H. Pearson, LL.D., M.P., Minister of Public Instruction in Victoria, was laid before the Parliament of Victoria during the past session, and will amply repay perusal. (See Parliamentary Paper B. 579, Session 1888).

Exhibition. Colonel Hutton also presented 33 volumes of the *Journal of the Asiatic Society of Bengal*, and Mr. James Graham presented the original plan for the first land sale held in Melbourne, on the 1st June, 1837. Of the books purchased, a collection of works on the languages of the South Sea Islands may be mentioned as being of special interest and value.

883. The National Gallery, at the end of 1888, contained 15,669 works of art, viz., 150 oil paintings, 2,528 objects of statuary, etc., and 12,991 drawings, engravings, and photographs. It is opened at 10 a.m. and closed at 5 p.m. daily, Sundays and certain holidays excepted. The school of painting in connexion with this institution was attended in the year by 7 male and 23 female students, and the school of design by 64 male and 113 female students. The trustees report that the National Gallery was enriched during 1888 by the addition of several works of great value, of which the following are the most important:—"Dunstanborough Castle," by J. M. W. Turner, R.A., presented by the Duke of Westminster; "After the Storm," by Hans Gude, presented by Mr. Molesworth Greene; "The Land's End," by H. Koekkoek, presented by the artist; "James Watt's Workroom," by J. Pratt, presented by Messrs. G. & R. Tangye; marble bust of the late Sir John O'Shanassy, by Charles Summers, presented by Mr. Matthew O'Shanassy.

884. The Industrial and Technological Museum joins the National Gallery, and was opened on the 7th September, 1870. It now contains 1,524 publications, 48,938 specimens, and 161 drawings. It is open on the same days and during the same hours as the National Gallery. Class lectures, given in 1888, on chemistry and mineralogy, were attended by 19, and on telegraphy by 90 students. Whenever additional space can be provided, it is proposed to give special prominence to the specimens of economic botany, and to re-arrange the collections, so that information concerning the vegetable products of Australia and their uses may be more easily obtained than is now possible. A fire having occurred in the laboratories in the month of November, 1887, the attention of the trustees was directed to the danger to the valuable collections under their charge which the continuance of the laboratory in its present position would involve, and it was proposed to share the use of a building to be erected on the grounds of the Working Men's College, with that institution and the Pharmaceutical Society. There were several conferences on this suggestion, but no satisfactory arrangement could be made, and the trustees state that, recognising the importance of having the laboratory

easily accessible from the Museum, and the necessity for considering the requirements of the mining and other public departments, that they have to keep the laboratory where it is for a time. By making the building as safe as its material will admit they consider the risk of fire can be reduced to a minimum, but they will continue their endeavours to find a better position for the laboratory where a suitable building can be erected.

National
Museum.

885. The collections of the National Museum are kept in a building situated on the grounds of the Melbourne University. They consist of stuffed animals and birds, insects, specimens of minerals, and other objects of curiosity. The cost of the edifice was about £8,500. It is open to the public free of charge on all week days throughout the year, except Christmas Day and Good Friday, between the hours of 10 a.m. and 5 p.m., and in 1888 was visited by 133,705 persons. During the same year, besides presentations of value and interest made to the institution, purchases were made to the extent of £908. The payments for salaries and wages amounted to £1,606. The total amount of aid from Government during the year was £2,570. By a further instalment of the register of the museum recently furnished by the Director, it appears that 52,508 specimens have been catalogued, classified, and labelled.

Patent
Office
Library.

886. There is a free library in connexion with the Patent Office, attached to the Registrar-General's Office, Melbourne. This contains about 4,250 volumes, consisting of the patent records of Great Britain, Victoria, New South Wales, New Zealand, Canada, the United States, Italy, Germany, etc., and other works. Here also are on view about 310 models of patented or protected inventions, and 152 models of designs under the *Copyright Act*. The approximate value of the books is £4,000, and of the models £250. The library is open to the public on each week day, except Saturday, between the hours of 9 a.m. and 4.30 p.m., and on Saturday from 9 a.m. until noon.

Supreme
Court
Library.

887. The Supreme Court Library at Melbourne has seventeen branches in the assize towns. It is free to members of the legal profession between the hours of 9 a.m. and 4 p.m., except on Saturdays, when it closes at noon. It is supported by fees paid under rules of court for the admission of barristers and attorneys. The number of volumes at the end of 1888 was 19,118. The expenditure from the commencement has amounted to £26,423, of which £1,428 was spent in 1888.

888. There are free libraries, athenæums, or scientific, literary, or mechanics' institutes, in most of the suburban and country towns of the colony. Some of these institutions receive books on loan from the Melbourne Public Library. Three hundred and forty-nine furnished returns for 1888 to the Government Statist. Their statements show that their total receipts in that year amounted to £52,183, of which £13,606 was contributed by Government, and £38,577 by private individuals; that the number of volumes in all the institutions amounted to 416,045, and that during the year 2,246,181 visits were paid to 211 of them which kept attendance-books. If visitors attended the others in the same proportion, the total number of visits during 1888 must have amounted to fully 3,715,500.

Free
libraries,
etc.

889. Greater Melbourne is amply supplied with public reserves and parks, the total area of which is 5,072 acres. Of these reserves 1,723 acres are in Melbourne city, 634 in Kew, 474½ in South Melbourne, 446¼ in Williamstown, 190½ in Richmond, 80¼ in Port Melbourne, 166½ in Brighton, 250 in St. Kilda, 23 in Prahran, 36 in Footscray, 41 in Fitzroy, 39 in Collingwood, 54 in Essendon, 14½ in Northcote, 15 in Hawthorn, 9½ in North Melbourne, 306¾ in Flemington and Kensington, and 569 outside urban municipalities.

Public
reserves in
Greater
Melbourne.

890. The following list of these reserves, together with a statement of their respective areas, has been supplied by the Lands Department:—

Public
reserves.

PUBLIC RESERVES IN MELBOURNE AND SUBURBS,* 1889.

Municipality.	Name of Reserve.	Area.
		Acres.
Melbourne City	Royal Park	444
"	Yarra "	155
"	Prince's "	97
"	Fawkner "	102
"	Flinders "	24
"	Park (Model Farm)	81
"	Botanic Garden and Domain	235
"	Zoological "	55
"	Carlton "	63
"	Fitzroy "	64
"	Spring "	21
"	Flagstaff "	18
"	Argyle Square	3¼
"	Curtain "	3½
"	Darling "	2
"	Lincoln "	3¼
"	Macarthur "	1

* A description of the most important of these reserves, as well as of the Botanic and other public gardens in several of the country towns, was published in the *Victorian Year-Book* 1883-4, following paragraph 1,315.

PUBLIC RESERVES IN MELBOURNE AND SUBURBS,*
1889—continued.

Municipality.	Name of Reserve.	Area.
		Acres.
Melbourne City ...	Murchison Square	1
" ...	University "	3½
" ...	University Grounds	106
" ...	Friendly Societies' Grounds	33
" ...	Industrial Schools and Board of Health Depot	47
" ...	Melbourne Cricket Ground... ..	9½
" ...	East Melbourne "	7†
" ...	Scotch College "	7
" ...	Richmond "	6
" ...	Carlton "	5
" ...	Parliament Reserve	10
" ...	Ornamental Plantations	1½
" ...	General Cemetery	101
" ...	Old Cemetery	8½
" ...	Military Parade Ground	5
North Melbourne Town ...	Recreation	9½
Fitzroy City ...	Edinburgh Park	34
" ...	Recreation	7
Collingwood City ...	Mayor's Park	6
" ...	Recreation	7
" ...	Darling Gardens	16
" ...	Victoria Park	10
Richmond City ...	Richmond Park	150
" ...	Horticultural Gardens	33½
" ...	Barkly Square	7
Northcote Borough ...	Jika Park	14½
South Melbourne City ...	Albert Park (part of)	464
" " ...	St. Vincent Gardens	7½
" " ...	Ornamental Plantations	2½
Port Melbourne Borough ...	Cricket Ground	7½
" " ...	Park and Garden... ..	56
" " ...	Ornamental Plantations	17
Prahran City ...	Recreation	23
St. Kilda Borough ...	St. Kilda Gardens	16
" ...	Albert Park (part of)	106
" ...	Recreation	54
" ...	"	4¾
" ...	"	11
" ...	"	15¾
" ...	" (Dandenong Road)	22½
" ...	Cemetery	20
Brighton Town ...	Elsternwick Park... ..	85
" ...	Recreation (Elsternwick)	14½
" ...	Beach Park	67
Essendon Borough ...	Recreation	10½
" ...	"	5½
" ...	Agricultural Society's Yards	30
" ...	Ornamental Plantations	8½
Flemington and Kensington Borough ...	Racecourse	301
" ...	Recreation	5¾

* See footnote on preceding page.

† Vested in Victorian Railways Commissioners, but still used for cricket.

PUBLIC RESERVES IN MELBOURNE AND SUBURBS,*
1889—continued.

Municipality.	Name of Reserve.					Area.
						Acres.
Hawthorn Town ...	Recreation	...	...	...	...	15
Kew Borough ...	Studley Park	...	...	...	...	203
" ...	Lunatic Asylum	...	...	...	...	384
" ...	Cemetery	...	...	...	...	31
" ...	Recreation	...	...	...	...	16
Footscray Town ...	Public Gardens	...	...	...	...	26
" ...	Cricket Ground, etc.	...	...	...	...	5
" ...	Recreation (Yarraville)	...	...	...	...	5
Williamstown Town ...	Park	...	...	...	...	36
" ...	"	...	...	...	...	20
" ...	Beach Park	...	...	...	...	20
" ...	Cemetery	...	...	...	...	15
" ...	Rifle Range	...	...	...	...	332
" ...	Cricket Ground	...	...	...	...	6 $\frac{3}{4}$
" ...	Public Garden	...	...	...	...	3 $\frac{1}{2}$
" ...	Recreation (Newport)	...	...	...	...	13
Outside urban muni- cipalities	Yarra Bend Asylum	...	...	...	...	350
	Malvern Recreation	...	...	...	...	5
	" Caulfield Park	...	...	...	...	8
	" Racecourse	...	...	...	...	62
Total						144
Total						5,072

891. The Melbourne Botanic Garden is open to the public daily, free of charge. The following interesting account of the garden, and of the Government House grounds and Domain adjoining, has been kindly supplied for this work by the director, Mr. W. R. Guilfoyle, F.L.S. :—

Melbourne
Botanic
Garden.

"The Melbourne Botanic Garden is situated on the south side of the River Yarra, and at a distance of about a mile and a half from the heart of the city. The river forms the northern boundary of the garden; while on the east it is bounded by Anderson Street, South Yarra; and on the south and west sides is enclosed by the Government House grounds and domain.

"The Botanic Garden has been in existence for some forty-seven years, the site having been chosen by His Excellency Governor La Trobe. The area is 83 acres, and to show its relative size, compared with other similar institutions, it is as large as the Botanic Gardens of Sydney, Adelaide, and Brisbane combined; while the total area, with the Government House grounds and domain adjoining, is about 300 acres. The principal features of the garden are :—

"1st. The extensive green undulating lawns, which are five in number, and each of which is many acres in extent. These are largely composed of the buffalo grass (*Stenotaphrum glabrum*), which is much intermixed with ordinary lawn grasses to ensure a more perfect sward all the year through.

* See footnote on page 429.

- “2nd. The arrangement of classified groups containing the natural orders of plants, as well as numerous large plantations of ornamental and coloured foliage plants, cut out in irregularly-shaped beds on the various lawns. The number of botanically classified groups is at present 39, representing about 500 genera and nearly 2,000 species. Appended is a list of the orders, with the names of the lawns on which they are grouped.
- “3rd. The general and systematic nomenclature of the plants. To each specimen in the scientific groups so called, as well as before the various plants on the lawns, and also in front of those in the numerous beds, is placed a label or tablet, on which is written the botanical name, authority, common name, natural order, and the habitat to which the plant belongs. This plan affords the public an opportunity of acquiring a fair knowledge of the plant, and is highly appreciated among the numerous visitors. During the year 1889 some 10,000 labels, including large tablets, were written and placed out in different parts of the grounds.
- “4th. The fern ground or gully, through which a winding pathway—some 900 feet long—has been made, and which crosses and re-crosses it at short intervals. Here, along the watercourse, and lining the pathway on either side, are some hundreds of our native tree ferns. In order to provide the necessary shelter for this spot, a large number of native and exotic umbrageous trees and shrubs have been placed at various parts. Several hundreds of the epiphytal ferns of Queensland, New South Wales, etc., including *Platyceriums*, *Polypodiums*, *Aspleniums*, and others, are fixed to the stems of the larger ferns and other trees. The whole of these, together with thousands of the smaller native ferns, are growing luxuriantly, and form beautiful vistas from almost any position along the pathway.
- “5th. The lake—a beautiful sheet of water, occupying an area of about 8 acres. This, with its surrounding rockeries, rustic bridges, and numerous islands dotted about in various parts, is always a pleasing sight. The islands have been ornamentally planted with specimens of native and other vegetation. Growing in one portion of the lake are some large plants of the *Nymphæa alba*—English water lily—as well also a large number of the *Cyperus papyrus*—the Nile paper rush. Numbers of water fowl, including white and black swans, ducks, and other birds, disport themselves on its waters.
- “6th. The conservatories, with their valuable collections of exotic plants. These houses are four in number. The principal conservatory was built about twelve years ago, and is merely a section of a large and handsome building, the plans for which are in the hands of the Public Works Department. The portion erected is devoted to a large and choice collection of handsome coloured and ornamental foliage plants, from various parts of the world, and includes some large specimens of choice palms, *Crotons*, *Cordylines*, and numerous rare flowering plants. The older conservatory of the two larger ones has been converted into a fernery, where a collection of five or six hundred species of these well-known and universally admired plants is grown. A portion of this building, however, has been devoted to some of the more tender economic plants, including the mango, breadfruit, coffee, sugar-cane, cinnamon, the chocolate tree, and many other plants of commerce. The third conservatory is occupied by an extensive collection of succulent plants—*Cacti* and others. It is hoped before long that the principal conservatory will be enlarged and extended in accordance with the plans, to ensure the possibility of again growing *Victoria Regia* (the original building having collapsed from age); to give more room for the plants now overcrowded, and to contain the ferns and economic plants now in the older conservatory, which is in a state of decay and beyond repair.
- “7th. Large and well grown types of Victorian and Australian vegetation, including large species of *Eucalypti*, *Araucarias*, *Acacias*, *Coryphas* and other palms; also, of introduced plants, as *ulmus*, *pinus*, *cupressus*, etc.,

placed about on the lawns and in other positions to harmonize with the outer surroundings and increase the picturesque views to be had from almost any part of the grounds.

"8th. The grouping of plants according to their geographical distribution. The plants of Queensland are contained in a number of groups close together; a large plantation of the principal Australian plants is arranged continuously alongside one of the paths; the American plants are distributed over one large group; and in process of completion in adjacent groups, are the plants of New Zealand, Northern New South Wales, etc.

"One of the principal uses of the department is shown by the great attention which is paid to the introducing, raising, and propagation of plants of utilitarian value, for the purpose of distribution to various parts of the colony and elsewhere, with the ulterior object of establishing and fostering new industries. For instance, many farmers, selectors, and others throughout the colony, have been supplied with seeds of *Ricinus communis*—the castor oil tree—and other useful plants, for the purpose of testing their value as remunerative crops. Seeds, plants, cuttings, etc., of olives, as well as numerous grasses, fodder plants, and other economic plants, have been freely distributed, with the objects of testing their adaptability for culture in this colony, and the probable value of their returns, either solely or in addition to their already well-proved remunerative crops.

"Experiments are from time to time carried on at the laboratory for the purpose of testing the products, making preparations, and obtaining extracts from various plants, with the view of ascertaining their uses, economic value, and adaptability for extensive cultivation. The value of and the results of these experiments were to be seen in the large exhibit shown at successive International and Intercolonial Exhibitions. Among the exhibits were 120 different samples of fibres prepared from native and introduced plants growing in the gardens; 49 samples of paper prepared from various plants; specimens of woods from 140 kinds of native trees; and also samples of chemical preparations and vegetable extracts, numbering in all about 100 kinds, and including dyes, gums, resins, oils, and other articles of commerce, principally from native plants.

"Extensive interchanges of seeds, plants, and cuttings have been kept up with similar and kindred institutions throughout the colonies, and in England, France, Germany, Russia, America, China, Mauritius, India, Japan, Cape of Good Hope, Straits Settlements, South Sea Islands, and other parts of the globe, for the purpose of introducing new or rare plants for the enrichment of the garden collection, and with the object of acclimatising such as might prove of commercial value for the benefit of the colony. For this purpose of interchange, as well as for the replenishment and providing of stock for the grounds, and constant improvements which are being carried on, and also for the stocking and keeping up a floral display in the conservatories, thousands of plants are annually raised in the propagating division of the department.

"A catalogue of the whole of the plants in cultivation in the grounds was published some time since, and is available to the public by purchase from the Government Printer, and free to public institutions or individuals with whom interchanges of plants, seeds, etc., are maintained. This has proved of great service to all desiring means of reference *re* correct nomenclature, description, native countries, etc., and giving other interesting particulars concerning the plants of the gardens.

"Four rustic summer houses, and one commodious band house for occasional performances, built principally with colonial woods, have been placed in suitable positions for the convenience of the public. These are ornamentally designed, being octangular in shape, and having gable openings at intervals around the walls. The ceilings and walls are lined with beaded boards; while around the walls a rustic seat is fixed—the houses affording accommodation for from 30 to 60 persons.

"Among the recent works has been the preparation for and formation of a group of plants used for medicinal purposes. This collection, recently planted, at present numbers about 170 different species. They have each a metallic label placed before them, with full particulars as to the plant. Students and others interested in medicines can see at once and thoroughly inspect a large number of the plants with which they, in their practices, are being constantly brought into contact. A large quantity of the leaves, fruit, and roots of this class of plants are frequently being distributed to applicants, on the recommendation of medical men, for use in preparations or applications for the alleviation of pain and the effecting of remedies in certain sicknesses. The increasing of this class of plants is an object always kept in view. Two groups—one of dwarf flowering plants, solely Australian, situated on the western lawn, and among which are some of the choicest of this colony's flora; the other on the margins of the eastern and central lawns, containing a large collection of the most beautiful of the flowering shrubs at present in the garden—have recently been formed. The latter will be useful to the public for noting the names of such shrubs as they may deem desirable for adorning their various private gardens.

"The whole of the lawns are kept in order by means of Shanks' patent one horse mowing machines. A large quantity of water is necessary for the proper keeping of the grounds, especially during the summer season. This has hitherto been supplied from the River Yarra, and pumped by steam power into a reservoir situated in the eastern part and highest elevation of the garden. The reservoir is capable of containing nearly 300,000 gallons, and from it reticulation pipes are laid throughout the garden, Government House grounds and domain.

"The river water, by reason of the removal of the falls, becomes largely intermixed with tide water from the bay, and, having proved very destructive to the plants, its use is to be discontinued and a fresh supply obtained from Dight's falls, a considerable distance higher up the river. This, in conjunction with the construction, as intended, of a second reservoir of equal dimensions, will give all that is necessary to insure a luxuriant growth of all the plants and lawns under cultivation in the grounds.

"The Government House grounds (61 acres) are included with the management of the Department of the Botanic Garden, and are laid out in lawns, flower beds, ornamental groups of trees and shrubs, and carriage drives to harmonize with and for the embellishment of the vice-regal residence. The domain (152 acres) which adjoins the Botanic Garden and Government House grounds contains a large number of well-grown exotic and other trees. Though much labour has been expended in the domain, much of it is still in an uncultivated state.

"The Botanic Garden is thronged with thousands of visitors on Sundays and holidays, the lawns being crowded by the public, for whose benefit the institution is maintained, not, however, solely as a resort, but also as a school for useful and scientific information.

"List of the Natural Orders of plants represented in the Melbourne Botanic Garden which are grouped on the various lawns as follows:—

WESTERN LAWN—

Berberideæ
Capparideæ
Cistineæ
Cupuliferæ
Epacrideæ
Ericaceæ
Hydrophyllaceæ
Laurineæ
Magnoliaceæ
Pittosporæ
Polemoniaceæ
Polygaleæ
Proteaceæ
Ranunculaceæ

Rosaceæ

Saxifrageæ
Solaneæ
Ternstroemiaceæ
Thymealæ
Urticeæ

BUFFALO LAWN—

Rutaceæ
Sapindaceæ

CENTRAL LAWN—

Caprifoliaceæ
Cycadeæ
Leguminosæ
Lythrarieæ
Myrtaceæ

EASTERN LAWN—

Amaryllideæ
Acanthaceæ
Bignoniaceæ
Irideæ
Liliaceæ
Melastomaceæ
Myoporineæ
Oleaceæ
Palmæ
Scrophularineæ
Sterculiaceæ
Verbenaceæ

" Besides these collections many representative plants are to be found growing either in the conservatories, or in the general grounds in positions to suit their respective characteristics, as shown by the further list of Natural Orders now quoted :—

Alismaceæ	Dilleniaceæ	Nyctagineæ
Amarantaceæ	Dioscorideæ	Nymphæaceæ
Ampelideæ	Dipsaceæ	Ochnaceæ
Anacardiaceæ	Ebenaceæ	Onagrarieæ
Anonaceæ	Elæagneæ	Orchideæ
Apocyneæ	Euphorbiaceæ	Pandanaceæ
Araliaceæ	Ficoideæ	Papaveraceæ
Aristolochiaceæ	Filices	Passifloreæ
Aroideæ	Gentianeæ	Phytolaccaceæ
Asclepiadeæ	Gesneraceæ	Piperaceæ
Begoniaceæ	Gnetaceæ	Plantagineæ
Bixineæ	Goodeniaceæ	Plumbagineæ
Boragineæ	Gramineæ	Polygonaceæ
Bromeliaceæ	Guttiferæ	Portulaceæ
Bruniaceæ	Hamamelideæ	Primulaceæ
Burseraceæ	Hæmodoraceæ	Restiaceæ
Cactææ	Hypericineæ	Rhamneæ
Calycanthaceæ	Ilicineæ	Rubiaceæ
Campanulaceæ	Juglandææ	Salicineæ
Canellaceæ	Juncaceæ	Santalaceæ
Caryophylleæ	Labiataæ	Sapotaceæ
Casuarineæ	Lineæ	Scitamineæ
Celastrineæ	Loganiaceæ	Simarubææ
Chenopodiaceæ	Lycopodiaceæ	Sterculiaceæ
Chloranthaceæ	Malpighiaceæ	Stylidieæ
Combretaceæ	Malvaceæ	Styraceæ
Commelyneæ	Melastomaceæ	Taccaceæ
Compositæ	Meliaceæ	Tamariscineæ
Coniferæ	Menispermææ	Tiliaceæ
Convolvulaceæ	Monimiaceæ	Tremandreeæ
Coriariææ	Myoporineæ	Turneraceæ
Cornaceæ	Myricaceæ	Umbelliferæ
Crassulaceæ	Myristiceæ	Valerianeæ
Cruciferæ	Myrsineæ	Violarieæ
Cucurbitaceæ	Naiadaceæ	Xyrideæ
Cyperaceæ	Nepenthaceæ	

" The orders which are represented by plants in the conservatories, are, in several instances, typified by species of too tender a nature to allow of their being grouped with others in a systematic arrangement, but they are to be readily found on enquiry, all being correctly described on the labels affixed to the plants. In due time, as opportunities offer, further extension of the classified groups will be made on the lawns, etc., and where this is not found to be practicable, the shelter sheds which are in hand for erection, will give such means for large representative grouping as the Director will arrange, for the object of giving still further opportunities to students and other visitors of obtaining the information so useful in connection with botany, medicine, the arts, manufactures, etc."

892. The following is a list of the principal Charitable Institutions in Victoria, and a statement of the accommodation which, according to the returns of the year ended 30th June, 1888, was available for indoor patients :—

Accommodation of charities.

CHARITABLE INSTITUTIONS.*—AMOUNT OF ACCOMMODATION,
1887-8.†

Description of Institution.	Number of Institutions.	Dormitories.		Number of Beds for Inmates.	Number of Cubic Feet to each Inmate.
		Number.	Capacity in Cubic Feet.		
General hospitals ‡ ...	38	351	3,067,102	2,407	1,274
Women's Hospital ...	1	17	51,600	43	1,200
Children's Hospital ...	1	9	59,176	70	845
Eye and Ear Hospital ...	1	6	33,332	43	775
Hospitals for the Insane ...	5	938	2,065,698	3,303	625
Idiot Asylum § ...	1	12	35,244	63	559
Benevolent asylums ...	5	137	1,043,096	1,416	737
Immigrants' Home|| ...	1	17	418,416	559	749
Blind Asylum ...	1	5	78,658	108	728
Deaf and Dumb Asylum ...	1	4	73,765	74	997
Orphan asylums... ...	7	66	476,885	1,005	475
Industrial Schools ...	5	20	224,469	314	715
Reformatory Schools ...	4	18	213,978	235	911
Infant Asylum ...	1	5	18,407	52	354
Female refuges ...	6	109	320,047	437	732
Total ...	78	1,714	8,179,873	10,129	807

Cubic space
in wards.

893. According to regulations issued by the Central Board of Health in Melbourne, not less than 1,200 cubic feet in the wards of a hospital or other institution of a like nature, should be allowed for each individual. It will be observed by the figures in the last column of the foregoing table that this amount of space for inmates is not attained in the case of any of the institutions, except the general hospitals and the Women's Hospital. It may be remarked that one important authority considers so large an amount of space unnecessary. The late Dr. Paley, in his report on the Hospitals for the Insane for 1878,¶ mentioned 500 feet for each patient in ordinary wards, and 1,000 feet in hospital wards, as a sufficient allowance; but, on the other hand, Dr. McCrea, the late Chief Medical Officer, in a paper contributed by him to a "Précis of Information concerning the Colony of Victoria," prepared some years since, under the editorship of the present writer, for the Intelligence Department of the Imperial War Office, gave it as his opinion that, whilst 600 feet of cubic space

* Only three of these are Government institutions, viz., the Hospitals for the Insane, the Idiot Asylum, and the Industrial and Reformatory Schools.

† Except in the case of the Industrial and Reformatory Schools, for which the returns, both in this and the following tables, are for the year ended 31st December, 1888.

‡ A list of the general hospitals is given in the table following paragraph 317 *ante*.

§ The Idiot Asylum is under the same control with the Hospitals for the Insane

|| The name of this institution is misleading; it is really a benevolent asylum.

¶ Parliamentary Paper No. 36, Session 1879.

is sufficient for each person in a well-ventilated sleeping room, as much as from 1,500 to 2,000 cubic feet ought to be allowed in hospital wards.

894. The following table shows the total and average number of inmates in the same institutions during the year ended 30th June, 1888; also the number of deaths, and the proportion of deaths to inmates:—

CHARITABLE INSTITUTIONS.—INMATES AND DEATHS, 1887-8.

Description of Institution.	Number of Inmates.		Number of Deaths.	Proportion of Deaths to Total Number of Inmates.
	Total during Year.	Daily Average.		
General hospitals	16,469	1,760.2	1,836	Per cent. 11.15
Women's Hospital, etc.*	1,040	41.7	20	1.92
Children's Hospital	652	35.5	43	6.60
Eye and Ear Hospital	406	41.7	...	...
Hospitals for the Insane	4,288	3,514.0	210	4.90
Idiot Asylum	79	60.0	7	8.86
Benevolent asylums	1,957	1,288.0	251	12.82
Immigrants' Home	2,252	670.0	93	4.13
Blind Asylum	115	102.7	1	.87
Deaf and Dumb Asylum	79	66.1	1	1.27
Orphan asylums	1,423	1,156.7	5	.35
Industrial and Reformatory Schools†	3,730	3,257.5	40	1.07
Infant Asylum	75‡	37.0	15	20.00
Female refuges	679	361.0	5	.74
Total	33,244	12,392.1	2,527	7.60

895. With reference to the over-crowding of some of the institutions, a comparison of the last two tables will show that the daily average of inmates in the year under review was greater than the number of beds in the Hospitals for the Insane, the Immigrants' Home, and the Orphan Asylums. The children attached to the Industrial and Reformatory Schools greatly outnumber the beds, but as the majority of these are boarded-out,§ the institutions are not overcrowded.

896. Nearly all the institutions give returns of the birthplaces of their inmates. These are summarized in the following table, and the

* Exclusive of infants.

† Including those boarded-out and sent to service from Industrial Schools as well as the inmates of the institution.

‡ Exclusive of mothers, of whom 52 were admitted during the year, and 17 remained at its end.

§ See paragraph 921 *post*.

totals are compared with the estimated numbers of the same birth-places in the population :—

CHARITABLE INSTITUTIONS.—BIRTHPLACES* OF INMATES, 1887-8.

Description of Institution.	Australasian Colonies.	England and Wales.	Scotland.	Ireland.	China.	Other Countries & Unknown.	Total.
General hospitals ...	6,325	4,324	1,126	3,060	306	1,328	16,469
Women's Hospital ...	722	166	16	94	...	42	1,040
Eye and Ear Hospital ...	196	90	25	69	3	23	406
Hospitals for the Insane ...	661	919	375	1,210	107	1,016	4,288
Idiot Asylum ...	64	...	...	...	...	15	79
Benevolent asylums ...	145	827	209	574	63	139	1,957
Immigrants' Home ...	327	935	301	515	...	174	2,252
Blind Asylum ...	99	9	2	3	...	2	115
Deaf and Dumb Asylum...	72	6	...	...	...	1	79
Orphan asylums ...	1,320	15	2	32	...	54	1,423
Industrial and Reformatory Schools†	264	7	...	...	...	23	294
Total ...	10,195	7,298	2,056	5,557	479	2,817	28,402
Proportions per 1,000 of population‡ ...	15·00	41·83	36·24	54·87	39·04	75·22	26·74

Religions of inmates.

897. The same institutions which furnish returns of the birth-places furnish also returns of the religions of their inmates, and the result is given in the following table. The figures in the lower line express the proportions to the estimated living population of each sect :—

CHARITABLE INSTITUTIONS.—RELIGIONS* OF INMATES, 1887-8.

Description of Institution.	Protestants.	Roman Catholics.	Jews.	Bud-dhists, Confucians, etc.	Of other Sect, of no Sect, and Unknown.	Total.
General hospitals ...	10,919	4,875	152	255	268	16,469
Women's Hospitals ...	674	344	8	...	14	1,040
Eye and Ear Hospital ...	271	127	1	3	4	406
Hospitals for the Insane ...	2,307	1,360	15	90	516	4,288
Idiot Asylum ...	48	11	...	...	20	79
Benevolent asylums ...	1,302	561	3	40	51	1,957
Immigrants' Home ...	1,424	826	2	...	...	2,252

* Particulars relating to the Children's Hospital, Infant Asylum and Female refuges are not given in this table.

† The figures in this line represent the number of inmates of Industrial and Reformatory Schools (exclusive of those boarded-out, etc.) at the end of the year. The total number under the control of the institution during some portion of the year was 3,730.

‡ For numbers of each birthplace, see table following paragraph 48 in Vol. I.

CHARITABLE INSTITUTIONS.—RELIGIONS OF INMATES,
1887-8—*continued*.

Description of Institution.	Protestants.	Roman Catholics.	Jews.	Bud- dhists, Confu- cians, etc.	Of other Sect, of no Sect, and Unknown.	Total.
Blind Asylum	95	19	1	...	...	115
Deaf and Dumb Asylum ...	66	13	...	...	...	79
Orphan asylums	728	695	...	...	...	1,423
Industrial and Reformatory Schools*	153	139	1	...	1	294
Total	17,987	8,970	183	388	874	28,402
Proportions per 1,000 of } population† }	23·62	35·82	34·33	34·31	26·13	26·74

898. The ages of the inmates of most of the institutions are given as follow; also the proportion of the numbers at each age period to the numbers at the same age in the population:—

Ages of
inmates of
charities.

CHARITABLE INSTITUTIONS.—AGES OF INMATES, 1887-8.

Description of Institution.	Ages.										Total.
	Under 5.	5 to 10.	10 to 15.	15 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 and upwards.	Unknown.	
General hospitals ..	220	531	911	3,614	2,852	1,951	2,211	2,081	2,081	17	16,469
Women's Hospital ..	..	..	2	512	348	78	77	5	1	17	1,040
Eye and Ear Hospital ..	6	30	36	100	54	41	50	52	37	..	406
Hospitals for the Insane ..	..	27	37	370	777	819	950	620	265	423	4,288
Idiot Asylum ..	..	19	28	28	..	..	..	..	..	4	79
Benevolent asylums ..	58	..	1	44	35	38	134	310	1,335	2	1,957
Immigrants' Home ..	61	19	4	104	578	652	350	273	211	..	2,252
Blind Asylum ..	..	4	18	47	39	4	2	1	..	..	115
Deaf and Dumb Asylum ..	..	18	41	19	..	..	..	1	..	..	79
Orphan asylums ..	128	579	643	72	1	..	..	..	..	..	1,423
Industrial and Reforma- tory Schools†	11	16	149	118	..	..	..	..	..	..	294
Infant Asylum ..	75	..	..	..	..	..	..	..	..	..	75
Female refugees ..	..	..	4	289	151	109	91	28	..	7	679
Total ..	559	1,243	1,874	5,317	4,835	3,692	3,865	3,371	3,930	470	29,156
Proportions per 1,000 } of population† }	4·21	10·74	16·45	22·35	26·76	40·66	43·16	49·28	121·72	..	27·45

899. The total receipts of these institutions in 1887-8 amounted to £391,047, of which £222,905, or not quite three-fifths, was contributed by Government; and the expenditure amounted to

Receipts
and expen-
diture.

* See footnote (†) to table following paragraph 896 *ante*.

† For numbers of each sect, see table following paragraph 59 of Vol. I.

‡ For numbers of each age, see table following paragraph 62 of Vol. I.

£367,401. Of the Government contribution, £106,344 was expended on the Hospitals for the Insane, the Idiot Asylum, and the Industrial and Reformatory Schools, which are Government institutions; and the balance (£116,561) was distributed as grants in aid to the other institutions. A statement of the receipts and expenditure for the year of the Charitable Institutions is given in the following table:—

CHARITABLE INSTITUTIONS.—RECEIPTS AND EXPENDITURE, 1887-8.

Description of Institution.	Receipts.			Expenditure.
	From Government.	From other Sources.	Total.	
	£	£	£	£
General hospitals	67,489	67,311	134,800	125,914
Women's Hospital	2,500	4,238	6,738	5,569
Children's Hospital	625	4,047	4,672	3,810
Eye and Ear Hospital	500	2,201	2,701	2,558
Hospitals for the Insane	67,148	31,363*	98,511	98,511
Idiot Asylum				
Benevolent asylums	24,317	14,962	39,279	31,030
Immigrants' Home	6,450	2,614	9,064	8,779
Blind Asylum	2,000	3,788	5,788	6,025
Deaf and Dumb Asylum	1,750	2,479	4,229	3,394
Orphan asylums	9,060	19,218	28,278	25,311
Industrial and Reformatory Schools	39,196	1,850†	41,046	41,046
Infant Asylum	250	1,504	1,754	1,236
Female refuges	1,620	12,567	14,187	14,218
Total	222,905	168,142	391,047	367,401

Average cost
per inmate.

900. The following table gives a statement of the average number of inmates of the respective institutions during the year ended with June, 1888, the total cost of their maintenance, and the average cost per annum of each inmate:—

CHARITABLE INSTITUTIONS.—AVERAGE COST OF EACH INMATE, 1887-8.

Description of Institution.	Daily Average Number of Inmates.	Total Cost of Maintenance.†	Average Cost of each Inmate per annum.		
		£	£	s.	d.
General hospitals	1,760·2	107,621	61	2	10
Women's Hospital	41·7	4,911	117	15	5
Children's Hospital	35·5	3,810	107	6	6

* This represents the amount paid into the Treasury in 1888 by the Master-in-Lunacy on account of the maintenance of lunatic patients; and it is entered in this table as being a set-off against the total cost to Government of these institutions.

† Of this amount, £1,450 was received and paid into the Treasury during the year from parents and others for the maintenance of Industrial and Reformatory School children, and £400 was derived from the sale of articles produced, making a total of £1,850. No information is furnished of the amounts received from private sources by the assisted Industrial and Reformatory Schools.

‡ The amounts in this column represent the expenditure of the institutions less the cost of building and repairs and of out-door relief.

CHARITABLE INSTITUTIONS.—AVERAGE COST OF EACH INMATE,
1887-8—*continued*.

Description of Institution.	Daily Average Number of Inmates.	Total Cost of Maintenance.*	Average Cost of each Inmate per annum.
		£	£ s. d.
Eye and Ear Hospital	41·7	2,091	50 2 11
Hospitals for the Insane	3,514·0	98,511	27 11 3
Idiot Asylum	60·0		
Benevolent asylums	1,288·0	25,012	19 8 5
Immigrants' Home... ..	670·0	8,276	12 7 1
Blind Asylum	102·7	5,981	58 4 9
Deaf and Dumb Asylum	66·1	3,072	46 9 6
Orphan asylums	1,156·7	23,774	20 11 1
Industrial and Reformatory Schools ...	3,257·5	41,046†	12 12 0
Infant Asylum	37·0	1,236	33 8 1
Female refuges	361·0	13,478	37 6 8
Total	12,392·1	338,819	27 6 10

901. In 1887-8 the average cost per inmate was greatest in the Women's Hospital (£118), and the next in the Children's Hospital (£107). The general hospitals followed, with an average per inmate of £61; then the Blind Asylum, with £58; the Eye and Ear Hospital, with £50; and the Deaf and Dumb Asylum, with £46. The institutions in which the relative cost was least were the Immigrants' Home, with an average of less than £12 10s.; the Industrial and Reformatory Schools, with an average of less than £13; the Benevolent asylums, with an average of £19; and the Orphan asylums, with an average of under £21, per inmate. The children of the Industrial and Reformatory Schools, and Orphan Asylums are, however, for the most part, not resident in the institutions, but are boarded-out or licensed.

Expenditure
per inmate.

902. In Melbourne and suburbs, during the month of October of each year, the last Saturday and Sunday are set apart for making collections in aid of the charitable institutions. The movement is taken up warmly by the clergy of all denominations, who, on Hospital Sunday, preach sermons in aid thereof, and devote thereto all the offerings collected in their churches. Superintendents of Sunday and head masters of State schools, and the proprietors and persons employed in many places of business, also render important assistance in the collection of funds. The following are the amounts collected in each year since the movement was inaugurated:—

Hospital
Saturday
and Sunday

* See footnote (†) on preceding page.

† Cost to the State only. The assisted schools, which receive annually about £5,000 out of the Government grant, are also partly supported by private contributions.

HOSPITAL SATURDAY AND SUNDAY, AMOUNTS COLLECTED,
1873 TO 1888.

				£					£
1873	...	...	...	4,219	1882	...	...	...	7,022
1874	...	...	...	5,542	1883	...	...	...	7,091
1875	...	...	...	5,493	1884	...	...	...	8,253
1876	...	...	...	5,171	1885	...	...	...	9,516
1877	...	...	...	6,195	1886	...	...	...	9,222
1878	...	...	...	6,203	1887	...	...	...	10,289
1879	...	...	...	5,583	1888	...	...	...	14,416
1880	...	...	...	6,053					
1881	...	...	...	6,984	Total				£117,252

Distribution
of moneys
collected.

903. The following table shows the distribution of the amounts collected and the extent to which the respective charitable institutions have profited thereby:—

DISTRIBUTION OF HOSPITAL SATURDAY AND SUNDAY FUND,
1873 TO 1888.

Institution.				Amount Distributed.		
				1873 to 1887.	1888.	Total.
				£	£	£
Melbourne Hospital	...	...	...	35,673	3,604	39,277
Alfred Hospital	...	...	...	14,215	1,913	16,128
Benevolent Asylum	...	...	...	11,223	1,002	12,225
Women's Hospital	...	...	...	8,840	1,107	9,947
Hospital for Sick Children	...	...	...	9,711	1,877	11,588
Eye and Ear Hospital	...	...	...	5,139	662	5,801
Homœopathic Hospital	...	...	...	3,474	962	4,436
Immigrants' Aid Society	...	...	...	4,238	437	4,675
Richmond Dispensary	...	...	...	750	50	800
Collingwood Dispensary	...	...	...	985	100	1,085
Austin Hospital for Incurables	...	...	...	3,126	713	3,839
Convalescent Home for Women	...	...	...	60	30	90
" " Men	...	...	...	50	25	75
Total distributed				97,484	12,482	109,966
Total collected				102,836	14,416	117,252

Recoveries
of lunatics,
Australia
and
England.

904. The proportion of recoveries of patients in the Victorian Lunatic Asylums (Hospitals for the Insane) was much higher in 1888 than in previous years, the proportion having been 4,737* per 10,000 admitted as against a proportion of only 4,154 in 1887, and an average during the ten years ended with 1887 of 4,451. The proportion of recoveries was higher than in four of the other Australasian colonies, or than in England and Wales, as is shown by the following figures:—

* Males, 4,488 ; females, 5,093 per 10,000 admissions of either sex.

RECOVERIES OF LUNATIC ASYLUM PATIENTS IN AUSTRALASIAN COLONIES AND ENGLAND.

	Recoveries per 10,000 Admissions.*	Recoveries per 10,000 Admissions.*
1. Victoria ...	4,737	4. England and Wales ... 3,856
2. New South Wales ...	4,676	5. South Australia ... 3,847
3. Queensland ...	4,163	6. New Zealand ... 3,766

905. It has been noticed that in South Australia, England and Wales, Victoria, and New Zealand, the proportion of recoveries of female patients is greater than that of male patients; but in Queensland and New South Wales the reverse has been the case, the proportion of recoveries of males in these colonies having been greater than that of females.

906. In proportion to the numbers resident, the mortality in the Victorian Asylums during 1888, was higher than that during the year 1886 in the asylums of the other countries named, except England and Wales, as is thus shown:—

MORTALITY OF LUNATIC ASYLUM PATIENTS IN AUSTRALASIAN COLONIES AND ENGLAND.

Country.	Deaths per 10,000 Patients Resident.†		
	Males.	Females.	Both Sexes.
1. England and Wales ...	1,070	824	937
2. Victoria (1888) ...	701	594	671
3. New South Wales ...	761	497	658
4. Queensland ...	712	572	657
5. South Australia ...	700	560	640
6. New Zealand ...	756	416	636

907. It will be noticed that the proportion of deaths of female patients was in all cases smaller than that of male patients; and although the total mortality of lunatic patients was greater in Victoria than in New South Wales, Queensland or New Zealand, the mortality of male patients was less in the former than in either of the latter.

908. The following are stated to be the probable or predisposing causes of insanity in the male and female patients admitted into the Lunatic Asylums of Victoria in the last three years:—

* Figures for the neighbouring colonies, and for England and Wales, taken from page 14 of Reports of the Inspector of Lunatic Asylums for 1886 and 1888.

† Figures for England and Wales and the neighbouring colonies from page 15 of Report of Inspector of Lunatic Asylums, 1886.

CAUSES OF INSANITY OF LUNATIC ASYLUM PATIENTS, 1886 TO 1888.

Probable Causes.	Number of Admissions.							
	Males.				Females.			
	1886.	1887.	1888.	Total.	1886.	1887.	1888.	Total.
MORAL.								
Domestic trouble (including loss of relatives and friends)	8	3	8	19	15	21	18	54
Adverse circumstances (including business anxieties and pecuniary difficulties)	19	15	21	55	3	...	3	6
Mental anxiety and worry (not included under the above two heads), and over-work	13	18	11	42	2	14	5	21
Religious excitement ...	9	7	7	23	7	10	8	25
Love affairs (including seduction) ...	...	1	2	3	1	3	10	14
Fright and nervous shock ...	...	1	1	2	4	9	2	15
PHYSICAL.								
Intemperance in drink ...	36	69	71	176	21	27	14	62
" sexual ...	4	1	...	5	...	...	2	2
Venereal disease ...	1	1	...	2	...	...	...	...
Self-abuse ...	23	17	22	62	...	...	1	1
Over exertion ...	...	...	...	...	1	...	...	1
Sunstroke ...	9	14	19	42	2	5	2	9
Accident or injury (including surgical operations)	17	14	16	47	4	2	1	7
Pregnancy ...	...	...	...	...	3	...	1	4
Parturition and the puerperal state ...	...	...	...	...	18	18	10	46
Lactation ...	...	...	...	...	2	...	4	6
Uterine and ovarian disorders ...	...	...	...	...	8	9	3	20
Puberty ...	...	...	...	...	...	...	...	...
Change of life ...	...	...	...	...	2	4	2	8
Fevers ...	4	3	4	11	2	1	...	3
Privation and starvation ...	1	3	4	8	...	...	2	2
Old age ...	3	9	23	35	5	10	15	30
Epilepsy ...	9	1	2	12	2	...	...	2
Other bodily diseases or disorders ...	7	8	16	31	6	6	8	20
Previous attacks ...	...	36	49	85	11	17	51	79
Hereditary influences ascertained (direct and collateral)	9	4	12	25	6	11	15	32
Congenital defect ascertained ...	4	9	10	23	9	12	8	29
Habitual use of opium ...	1	...	...	1	...	...	...	...
Other ascertained causes ...	5	4	4	13	2	10	...	12
Unknown ...	151	129	73	353	126	101	78	305
Total ...	333	367	375	1,075	262	290	263	815

Property of
lunatic
patients.

909. In his report for 1888, the Inspector of Lunatic Asylums, Dr. Dick, alludes to the fact that many patients are discharged from the asylums without any means of support, that such money as they may have brought with them when admitted is paid into the Treasury by the Master in Lunacy, and frequently the whole sum is absorbed for maintenance and other charges, that the discovery of their loss when about to leave the asylum is a source of keen

disappointment, and adds to the difficulties against which they have to contend in striving to regain their position in life; he therefore recommends that all patients' property within a certain limit, or its value, should be returned to them at the time of discharge on grounds of policy as well as humanity.

910. The following information respecting the Victorian Asylum ^{Blind} and School for the Blind has been taken from the report of the ^{Asylum.} committee for the year ended 30th June, 1889 :—

"The number of blind participating in the benefits of the institution at the end of the year was 114.

"The school contains at present 38 juvenile pupils, consisting of 18 girls and 20 boys. The Braille system is still the main instrumentality of education employed in the school, by means of which the following subjects are taught, viz.:—In the first or lowest class, reading, writing, arithmetic, tables, spelling, dictation, map lessons, grammar (elementary), and poetry; in the second class all the above subjects, and, in addition, general knowledge, English and Australian history, geography, and moontype reading; in the third or highest class the list of subjects is further extended by the inclusion of Latin, French, elementary science (including physiology, physics, botany and natural history), and algebra.

"The musical department fully maintains its efficiency. The piano pupils number 35, organ pupils 5, learning stringed instruments (including the harp) 13. The choir consists of 26 members, and, in addition to the choir, 15 boys and girls are taught singing. The brass band is composed of 12 members, and the string band has 9. During the year the concerts and band performances realized a total net profit of £864 9s. 6d.

"The several branches of the industrial departments have continued their operations during the year with encouraging results. In the brush shop 14, in the basket shop 16, and in the mat shop 10, have been instructed and employed.

"A former pupil of the Normal College and Academy of Music for the Blind, Upper Norwood, London, has been engaged by the committee to instruct six pupils in the art of piano tuning, all of whom have made good progress.

"The aggregate amount received as proceeds of sales of manufactures for the year was £1,192 5s. 6d.

"The total amount of income of the year from all sources was £6,048 17s. 9d., and the entire expenditure for the same period amounted to £6,416 8s. 5d., leaving a debit balance for the year of £365 10s. 6d., and increasing the bank overdraft to £1,298 18s. 9d."

The committee conclude their report by stating "They are but at the beginning of the work that may yet be accomplished on behalf of the blind in this colony. During the last few years great advances have been made in the education of the blind throughout Europe and America, and the results attained in their leading institutions clearly manifest that a fair percentage of the youthful blind are capable of being successfully trained in all the higher branches of education, and in time to become teachers of others. Doubtless the large majority, to become self-sustaining, must necessarily be instructed in and confine their efforts to those handicrafts which have been found most suitable to the condition of the blind, such as basketmaking, matmaking, brushmaking, etc., etc., yet a considerable number of them, it has been shown, can be trained to become successful teachers of languages, of music, and tuners of the piano. And it is worthy of special mention that twelve who owe their entire education to the Victorian Institute have been trained as teachers, one of whom was engaged for some time in the Perkins Institute for the Blind, Boston, America, one is now in New Zealand, and ten, in various parts of Victoria, are earning a respectable living as tuners, teachers of the piano and music generally; and of these four have occupied also the responsible position of organist, and year by year the number of such will surely increase if the necessary funds are forthcoming to enable the committee to carry on the work of instruction with

increased efficiency. It is hoped also that those who are being instructed in the higher branches of education may in time be able to support themselves as teachers in one or other of the many educational establishments of these colonies. The committee wish to emphasize the fact that in seeking to extend the education of the blind, and to raise it to a higher standard, their constant aim will be to direct every effort to the practical end of preparing the blind for self-maintenance, to enable them to take their place, however humble, in the great hive of human industry, and instead of being burdens to the community become contributors to its wealth and prosperity. In seeking by increased efforts to realize this practical and benevolent object, the committee trust to be favoured with the continued confidence and generous support of their fellow citizens."

Deaf and
Dumb
Institution.

911. The following information relating to the Deaf and Dumb Institution has been taken from the latest report of that institution:—

"At the beginning of the year the number of inmates was 69; since then 14 have been discharged, 8 have been admitted, leaving on the roll at the close of the year 63, and making the total number received from the commencement of the institution, 285.

"The health of the inmates, generally, has remained good during the year, only two cases of sickness have occurred, and the establishment has been quite free from the prevailing epidemics. This satisfactory state of things is, no doubt, mainly attributable to the improved sanitary condition of the premises effected in the previous year by the general substitution of surface for underground drainage.

"The work of instruction is still carried on by means of the manual and the oral systems. There are under the former 48, and under the latter 15 pupils. As these two systems are quite distinct, and as it is necessary for the success of the oral method that the pupils taught by it should be kept by themselves, a portion of the schoolroom has been partitioned off, and arrangements have been made in the dormitories and dining room to separate such pupils from the other scholars.

"During his recent visit to Europe the superintendent, at the request of the committee, visited several of the principal establishments for the education of deaf mutes in Great Britain, with a view of obtaining information which might be of service in the conduct of the Victorian Institution; he, however, found that the course of instruction, and the methods employed, were similar to those of our own school, and that the latter, in its operations and results, compared favourably with the former.

"The total sum received from all sources during the past year was £3,592, and the expenditure for the same period amounted to £3,136.

"The amount to the credit of the endowment fund, which at the end of last year was £2,515, has by several legacies been increased to £2,730."

Eye and Ear
Hospital.

912. The Victorian Eye and Ear Hospital was established with the object of treating a class of diseases which not only are the cause of extreme suffering, but also, where unchecked, produce much helplessness and poverty, arising from deafness and blindness, thus entailing a heavy burden on the community. It places within the reach of all persons, without distinction of creed or country, every attainable means for the relief or cure of diseases of the eye and ear. It received 368 in-patients during the year ended 30th June, 1888, making, with 38 in the institution at its commencement, a total of 406 treated. The patients discharged numbered 368, of whom 330 were stated to be cured or relieved, and 26 to be incurable. The number of out-patients during the year was 17,132.

913. The Melbourne Free Hospital for Sick Children had 12 in-door patients at the beginning of the financial year. During the year ended 30th June, 1888, 640 patients were admitted; and 550 were discharged, 43 died, and 59 remained at its close. Children's Hospital.

914. The objects of the Victorian Infant Asylum are the prevention of infanticide, the saving of infant life from the many evils arising from baby-farming, and the rescuing of mothers of illegitimate children from further degradation. Every child admitted must be brought by the mother, or some authorized person, who must enter the child's name and the date of birth in a register kept for the purpose, and must undertake to contribute something towards its support. During the year ended 30th June, 1888, the number of infants admitted was 40, of whom 33 were accompanied by their mothers, besides which 48 were under the care of the institution at the commencement of the year. The number who died during the year was 15, 4 were adopted, and 23 were discharged; and thus the number remaining under the control of the institution at the end of the year was 46, of whom 7 were boarded out. Besides the infants, there were 52 mothers in the institution during the year, of whom 1 died, and 34 were discharged, and 17 remained at the close of the year. The receipts during the year amounted to £1,754, of which £250 was from Government, and £1,504 from private sources; and the expenditure was £1,236. Victorian Infant Asylum.

915. A Humane Society was established in 1874, under the name of "The Victorian Humane Society," for the purpose of circulating information respecting the most effectual methods of, and providing suitable apparatus for, restoring persons apparently drowned or dead, and of bestowing rewards on those who risk their own lives to save those of their fellow-creatures. In April, 1883, Her Majesty's permission having been first obtained, the society assumed the title of "The Royal Humane Society," and in 1885 it was incorporated as "The Royal Humane Society of Australasia." Its objects are stated to be—(1) To bestow rewards on all who promptly risk their own lives to save those of their fellow-creatures. (2) To provide assistance, as far as it is in the power of the Society, in all cases of apparent death occurring in any part of Australasia. (3) To restore the apparently drowned or dead, and to distinguish by rewards all who, through skill and perseverance, are under Providence successful. (4) To collect information regarding the most approved methods and the best apparatus to be used for such purposes. The following information respecting the operations of this society has been supplied by its secretary, Captain C. B. Payne, R.N.:— Royal Humane Society of Australasia.

"In 1881, the Hon. Sir W. J. Clarke, Bart., generously presented to the society the sum of £250 for the purpose of founding a gold or silver medal, to be awarded annually to the best case that comes before the society. Since its establishment, it has dealt with 761 cases, and made 638 awards. During the year ended 30th June, 1888, 117 applications for awards were investigated, with the result that 27 certificates, 47 bronze medals, 9 silver medals, and the Clarke silver medal, were granted. The receipts during the year amounted to £1,363 7s. 10d., and the expenditure to £632 11s. The institution has placed and maintains 344 life-buoys at various places on the coast, rivers, lakes, and reservoirs throughout all the Australasian colonies (its operations extend throughout the Australasian colonies) and Fiji. Of the honorary awards distributed in 1888, 42 were for deeds of bravery performed in Victoria, 11 for similar acts in New South Wales, 2 in Queensland, 23 in New Zealand, 4 in Tasmania, and 1 in South Australia. The Society has 184 honorary correspondents, residing as follows, viz.:—37 in New South Wales, 30 in New Zealand, 33 in Queensland, 10 in Tasmania, 3 in South Australia, 6 in Western Australia, and 65 in Victoria. Owing to the appointment of these gentlemen and to the awards made by the society appearing to give complete satisfaction throughout the colonies, there is no urgency for forming local branches of the society in the other colonies. Renewed exertion is being made to induce both the Imperial and Australasian Governments to amend the law for the protection of life and property at sea, by introducing provisions respecting the carriage on board ship of suitable life-saving apparatus, to meet the numerous cases of shipwreck (which so often occur even to the best constructed and appointed ships, by collision, stranding, or foundering), and which alone can prevent or avert the lamentable loss of human life which, under the inadequacy of the present law, so often happens. The views of the society on this subject were embodied in a letter transmitted for the consideration of the members of the Royal Commission on 'Loss of Life at Sea,' and the subject was again brought under the notice of the Imperial Conference which recently sat in London, and resulted in a Bill being introduced into the House of Lords, which subsequently passed the Commons and received Her Majesty's assent on the 10th August, 1888. The title of the Act is *The Merchant Shipping Act 1888* (Life Saving Appliances). *The Marine Board Bill* passed in the colony also provides for the better preservation of life at sea. Instructions for saving life from drowning, sunstroke, snake-bite, etc., are taught in the State schools throughout the colony, but this year the directors of this society are urging that something more is now required; and, to give practical effect to their views, have determined to award bronze medallions for proficiency in swimming exercise, with reference to saving life; the competition to be open to the scholars at all public and private schools throughout Australasia. Efforts are still being made to induce the Education departments of the other colonies to adopt the plan followed in Victoria by making the instructions for saving life, etc., a part of the curriculum in the public schools."

Health
Society.

916. An Australian Health Society was established in Melbourne in 1875, and still maintains a vigorous existence. It consists of about 400 members, and is managed by a president, two vice-presidents, an honorary treasurer, two secretaries (one being a lady), and fifteen members of council. Its objects are—(1) To create and educate public opinion with regard to sanitary matters in general, by the aid of the platform, the press, and other suitable means; (2) to induce and assist people, by personal influence, example, and encouragement, to live in accordance with the recognized laws whereby health is maintained and disease prevented; (3) to seek removal of all noxious influences deleterious to public health, and to influence and facilitate legislation in that direction. To effect these objects, the society issues (*gratis*) pamphlets, tracts, and wall sheets, bearing upon the subject of

health and disease, and arranges for the delivery of lectures upon the same topics, the annual recurrence of which is considered by many a welcome event, as is evidenced by the large audiences they succeed in attracting. Instruction in hygiene is also given by the ladies' committee to classes, and at meetings for females only. The receipts of the society for 1888-9 amounted to £176, and the expenditure to about the same amount. No pecuniary aid is received from the Government, the work of the society being carried on by subscriptions ranging from 5s. per annum upwards.

917. A Charity Organization Society has been established in Melbourne, its objects being—(1) Promotion of co-operation in charitable work; (2) direction of the stream of charity to the deserving; (3) discouragement of indiscriminate giving; (4) exposure of sturdy beggars and professional impostors; (5) adequate inquiry before relief and compilation of records; (6) distribution of immediate relief *in kind* pending arrangements with existing charities; (7) inquiry upon the request of any charitable institution; (8) fostering the establishment of provident dispensaries; (9) encouragement of charitable effort in localities where no suitable societies are in existence. The business of the society is managed by a council empowered to make rules and regulations for the management of the business of the society and for their own government. This council consists of a representative of each of the charities, and of twenty members to be elected at an annual meeting of subscribers of the society. The number of members enrolled during the second year of the society's existence, which ended on the 30th June, 1889, was 272. The income of the year, added to an amount of £170 brought forward, was £730, the expenditure £543, and the balance on hand at the end of the financial year was £188. The cases investigated by the society during the year numbered 416, the result of the inquiry being that 166 were set down as satisfactory, 124 as unsatisfactory, and 126 as doubtful. The society claims to have prevented a large amount of imposture, to have relieved subscribers of the annoying feeling that their benevolence was wasted on unworthy objects, and to have stimulated and directed the flow of charity. Especially good work has, they say, been done in cases where employment has been found for those who, without the society's aid, might have degenerated into permanent burdens on public or private charity.

Charity Organization Society.

918. Since 1873 a society has been in existence in Melbourne for the purpose of affording assistance to discharged prisoners, and offering them inducements to return to the paths of honesty and industry.

Victorian Discharged Prisoners' Aid Society

Relief is afforded by gifts of money, clothes, blankets, and other necessaries, and those who desire it are supplied for a time with board and lodging in Melbourne, or are provided with means to go into the interior or to leave the colony. The society also takes charge of and distributes the sums earned by the prisoners whilst under detention. The number of individuals relieved in 1887-8 was 440, of whom 436 were males and 4 females. The receipts in the same year amounted to £880, viz., £391 from the Penal Department, and £489 from private sources, and the expenditure to £1,003. The Inspector-General of Penal Establishments, in his annual report, referred to the society in the following manner:—"The Discharged Prisoners' Aid Society has maintained its usefulness in the assistance of discharged prisoners to return to honest life and industry, and is a valuable auxiliary to the Penal Department."

Industrial
Schools.

919. There are 5 Industrial Schools in the colony, of which 2 are wholly, and 3 partly, maintained by the State; 2 of the latter are in connexion with the Roman Catholic denomination, and 1 is a Servants' Training School. The two Government schools are merely receiving depôts, it being the policy of the department to send the children, as soon as possible after they are committed, either to the farm or nursery just alluded to, or to the assisted schools or foster-homes. The Government Experimental Farm at Dookie* and the Macedon State Nursery were formerly, but are not now, included with the Industrial Schools. The number of Industrial School children at the end of 1888 was 2,915, viz., 1,597 males and 1,318 females. Of these, only 43 were in the Government receiving depôts, and 91 in assisted schools; of the remainder, 1,981 were boarded-out or adopted, 336 were placed with relatives on probation, and 464† were at service. The children committed to the Industrial Schools in 1888 numbered 352, viz., 231 boys and 121 girls. They were placed in the schools for the following reasons:—

	Boys.	Girls.
Neglected	202	118
Having committed a punishable offence ...	20	3
Uncontrollable	9	...
Total	231	121

Discharges
from
Industrial
Schools.

920. The number of distinct children who left the control of the Industrial Schools during the year was 424. These were discharged as follow:—

* For particulars of this farm, see paragraph 448 *ante*.

† Of these, 12 were licensed to parents, on probation without wages.

	Boys.	Girls.
From schools and boarded-out homes	21	9
From situations on expiration of term	197	158
Died (in schools, 9; while boarded-out, 28; in hospital, 2)	17	22
Total	<u>235</u>	<u>189</u>

921. Children are boarded-out from the Industrial Schools from the time they are weaned to that at which they are able to earn their own living, the welfare of the boarded-out children being cared for by honorary committees, who send in reports to the Industrial Schools Department. The rate paid by the Government to persons in charge of the boarded-out and adopted children is five shillings per week for each child. The number of such children at the end of 1888 was 1981, or 54 more than at the end of the previous year; and there were besides 336 in 1888, as against 324 in 1887, who were placed with friends on probation, without wages. In addition to these, 464 children at the end of 1888, as against 595 at the end of 1887, were at service or apprenticed.

Children
boarded-
out, etc.,
from Indus-
trial
Schools.

922. Under the same management and control as the Industrial Schools, there are also 4 Reformatory Schools, one of which is a Protestant and one a Roman Catholic institution. These schools are intended for children who have been convicted of crime; and criminal children committed by magistrates to industrial schools may be transferred thereto, and, in like manner, children not of sufficiently depraved habits to warrant their being detained in reformatories may be transferred to the Industrial Schools. The number of children belonging to reformatories at the commencement of the year 1888 was 290, and during the year there were 101 new committals, thus making a total of 391. Of these 68 were discharged, viz., 27 at the request of relatives, 40 on expiration of term, and 1 died. At the end of the year 323 children—218 boys and 105 girls—remained in connection with the institutions. Of the boys, 88 were in the reformatory at Ballarat, 84 were at service, and 46 were placed with relatives on probation; and of the girls 39 were in the reformatory at Coburg, 20 were in the assisted reformatory school maintained under the supervision of the nuns at Oakleigh, 13 in the Brookside Protestant school, 28 were at service, and 5 were placed with relatives on probation.

Reforma-
tories.

Inmates of
reforma-
tories.

Cost of
mainten-
ance of
industrial
and re-
formatory
children.

923. The Government expenditure for the maintenance of industrial and reformatory school children amounted in 1888 to £41,045, as against which £1,449 was received for maintenance from parents, and £400 was derived from the sale of farm produce, etc., or £1,849 in all, which leaves £39,196 as the net amount expended by Government. The mean number of children maintained was 3,258; and the average net cost of each to the State was thus £12 0s. 7d.

Refuges for
fallen
women.

924. Of the 679 females who were inmates of Refuges during the year ended 30th June, 1888, 90 were at the Temporary Home at Collingwood; 384 were at the Magdalen Asylum, Abbotsford; 74 at the Melbourne Refuge; 30 at the Ballarat Home; 22 at the Geelong Refuge, and 79 at the South Yarra Home. Moreover 59 children were allowed to accompany their mothers to the Melbourne Refuge, 15 to the Ballarat Home, and 4 to the Geelong Refuge. Five from the Magdalen Asylum, and 5 from the South Yarra Home, were discharged for misconduct; and 5 in the Magdalen Asylum died. Besides these numbers, 199 from all the institutions were placed in service or restored to friends, 63 left voluntarily, and 1 at the Ballarat Home was married. At the end of the year, the number remaining in the institutions was 366, of whom 284 were in the Magdalen Asylum. The objects of these institutions are (1) to provide a refuge for women who have fallen into vice, and who are desirous to return to the paths of virtue; (2) To reclaim such women from evil courses, and fit them to become useful members of society; (3) To assist in procuring situations for such women, or in otherwise providing for them on leaving the institution.

Inebriate
Retreat.

925. Forty-one patients—viz., 32 males and 9 females—were received into the Inebriate Retreat, in 1888, as against 27 males and 7 females in 1887. Of those admitted in 1888, 37 entered voluntarily and 4 compulsorily; 24 had been constant and 17 periodical drinkers; 28 had had delirium tremens; 31 had been accustomed to use tobacco, and 5 are known to have had intemperate parents.* Thirty-four patients were discharged during the year, and 8 remained in the institution at its close. This institution at present receives no pecuniary aid from the Government.

Governesses'
Institute
and Mel-
bourne
Home.

926. The Governesses' Institute and Melbourne Home contains 12 sleeping-rooms, having 27,354 feet of cubic space, and makes up 35

* It is said that some patients are unwilling to acknowledge parental intemperance, and consequently, this number is understated.

beds. The inmates in 1888 numbered 138, of whom 91 were needlewomen and servants, and 47 were governesses. The receipts during the year, all from private sources, amounted to £723, and the expenditure to £717.

927. The Melbourne Sailors' Home contains 3 wards, divided into 96 separate rooms, each containing one bed. The total number of cubic feet in the wards is 42,156. The total number of inmates in 1888 was 1,608. No aid was received from Government during the year. The receipts from private sources amounted to £5,058 and the expenditure to £5,256. The objects of the institution are to provide seamen frequenting the port of Melbourne with board and lodgings at moderate charges, to encourage them in provident habits, and to promote their professional improvement. Sailors' Home.

928. Three free dispensaries furnished returns for 1887-8. One of these was a homœopathic institution. The individuals treated during the year ended 30th June, 1888, numbered 4,234, viz., 1,650 males and 2,584 females. The visits to or by these persons numbered 14,926. The total receipts amounted to £703, of which £300 was from Government and £403 from private sources. The total expenditure was £681. Free Dispensaries.

929. Forty-five benevolent or philanthropic societies furnished returns for the year ended 30th June, 1888. These associations are for the relief of distressed or indigent persons, and are generally managed by ladies. The names of three of the societies indicate their connexion with the Jewish body, but no distinctive denomination is perceptible in the titles of the others. The persons relieved during the year numbered 8,476, the receipts amounted to £17,126, of which £5,455 was from Government and £11,671 from private sources, and the expenditure to £16,293. Benevolent Societies.

930. There is no poor law in Victoria, and, happily, one is not required, as pauperism does not exist here in the same sense as in the countries of the old world. The official returns of paupers in England and Wales are stated to be those showing the number of persons relieved exclusive of vagrants, and of pauper inmates of lunatic asylums, registered hospitals, and licensed houses. By the following figures, taken from a return ordered by the House of Commons to be Pauperism in England and Wales.

printed, it would appear that although the proportion of paupers to the population is still large in England and Wales, it has materially diminished of late years :—

PAUPERISM IN ENGLAND AND WALES, 1857 TO 1888.

Year.	Estimated Population.	Paupers relieved in last week of each year.	
		Total Number.	Number per 1,000 of the Population.
1857	19,256,516	936,815	48·6
1862	20,371,013	1,105,234	54·3
1867	21,677,525	980,421	45·2
1872	23,096,495	838,636	36·3
1877	24,699,539	685,218	27·7
1882	26,413,861	740,907	28·0
1887	28,247,151	758,146	26·8
1888	28,628,804	738,388	25·8

Friendly
Societies.

931. Friendly Societies are associations chiefly of working men, whose object is, by means of small periodical payments to provide for medical and monetary relief in sickness, and for payments to the families of members at the death of themselves and their wives. The following is an abstract of the particulars furnished respecting the Victorian societies for 1878 and the last three years :—

FRIENDLY SOCIETIES.

	1878.	1886.	1887.	1888.
Number of Societies	34	29	31	32
„ Branches	759	856	891	930
Average number of members ...	45,552	66,805	70,998	75,586
Number of members sick ...	8,207	10,177	11,209	11,227
Weeks for which aliment was allowed	55,289	80,621	88,532	89,602
Deaths of members	467	703	801	790
„ of registered wives ...	291	362	321	383
Income of sick and funeral fund ...	£78,863	£133,563	£139,192	£149,838
„ incidental fund ...	£83,016	£125,408	£127,914	£132,090
Total income	£161,879	£258,971	£267,106	£281,928
Expenditure of sick and funeral fund	£59,325	£84,058	£92,182	£96,027
„ incidental fund ...	£80,725	£122,732	£126,635	£131,711
Total expenditure	£140,050	£206,790	£218,817	£227,738
Amount to credit of sick and funeral fund	£372,598	£627,098	£674,107	£727,918
„ „ incidental fund	£16,310	£38,672	£39,954	£40,333
Amount invested—Sick and funeral fund	...	£589,275	£629,479	£675,220
„ „ Incidental fund	...	£27,384	£29,998	£29,662
Total invested	£348,703	£616,659	£659,477	£704,882

932. From the figures in this table it may be ascertained that whilst during the ten years ended with 1888 the number of members increased by 66 per cent., and the total annual expenditure by 62 per cent., the total annual income of the sick and funeral fund increased by as much as 90 per cent.; also that no less a sum than £355,000 was added to the sick and funeral fund in the same period, or an increase of 95 per cent. on the amount (£372,598) standing to its credit at the end of 1878.

Growth of
Friendly
Societies.

933. In proportion to the number of effective members of Friendly Societies, the average amount of sickness remains tolerably steady from year to year. The days per member for which aliment was allowed numbered 8·9 in 1880, 9·1 in 1881, 8·8 in 1882, 9·1 in 1883, 8·5 in 1884, 8·9 in 1885, 8·7 in 1886, 8·9 in 1887, and 8·7 in 1888. The death rate shows more fluctuation than the sick rate, as deaths per 1,000 members numbered 9·26 in 1880, 11·92 in 1881, 11·87 in 1882, 10·77 in 1883, 10·87 in 1884, 10·15 in 1885, 10·52 in 1886, 11·28 in 1887, and 10·45 in 1888.

Sickness and
death rates.

934. Friendly Societies are regulated under the *Friendly Societies Act* 1877 (41 Vict. No. 590), which, amongst other provisions, prescribes that each society shall furnish returns annually to the Government Statist, and once in every five years shall cause its assets and liabilities to be valued to the satisfaction of the same officer. As, in the event of the valuations being made outside the department of the Government Statist, which was originally contemplated under the *Statute*, it would probably have been necessary to reject some of them, which would have occasioned delay and caused trouble and expense to the societies, a qualified actuary has been appointed to that department, and the valuations are effected by him. The fees for valuation have purposely been fixed low, and average no more than threepence per member, the result being that, although it is competent for the societies to employ outside valuers if they desire it, as a matter of fact, they very rarely do so, and all the valuations are now made by the departmental actuary, an arrangement which has worked in a most satisfactory manner.*

Valuations
of Friendly
Societies.

* For full particulars relating to the valuation and operations of Friendly Societies in Victoria, see Annual Reports of the Government Statist of the Proceedings in connexion with Friendly Societies, published by the Government Printer, Melbourne.

PART IX.—DEFENCES.

Land forces

935. The Land Forces of Victoria consist of Permanent Forces, Militia, Militia Reserve, and Auxiliary Forces. The Permanent Forces are made up of the Head Quarters Staff and of the Victorian Artillery and Section Sub-marine Mining Corps; the Militia embrace the Cavalry, Nordenfelt Battery, Field and Garrison Artillery, Engineers, Infantry, and Medical arms of the service; the Militia Reserve is composed of men who have received training in the Militia; and the Auxiliary Forces include Mounted Rifles, Rifle Volunteers, and Riflemen in clubs. At the end of 1888 the strength of the various corps in all cases approximated closely to the establishment, which is as follows:—

LAND FORCES.—ESTABLISHMENT, 1888.

Branch of Service.	RANKS.				Total Establish- ment.
	Officers.	Warrant Officers.	Ser- geants.	Rank and File.	
Permanent Forces—					
Head Quarters Staff	4	11	37	...	52
Victorian Artillery	8	2	11	235	256
Permanent Section Submarine Mining Company ... ..	...	3	2	16	21
Militia—					
Cavalry... ..	3	...	4	64	71
Horse Artillery	3	...	6	51	60
Field Artillery	17	1	29	222	269
Garrison Artillery	32	...	30	660	722
Engineers	8	...	10	165	183
Infantry	82	4	72	1,861	2,019
Medical... ..	16	...	...	...	16
Total Permanent and Militia Forces	173	21	201	3,274	3,669
Auxiliary Forces—					
Mounted Rifles	21	...	30	949	1,000
Rangers	38	...	30	784	852
Riflemen in Clubs ... ..	...	...	...	2,649	2,649
Militia Reserve	46	...	...	1,003	1,049
Unattached List—Mounted Rifles ...	4	...	...	...	4
„ Medical Staff, Militia ...	18	...	...	...	18
Medical Staff, Mounted Rifles, and Rangers	19	...	...	...	19
Total all arms	319	21	261	8,659	9,260

936. Martini-Henry rifles and carbines are those in general use amongst the military forces; the number in possession and their distribution amongst the various corps at the end of 1888 were as follow:—

Rifles of
land forces.

RIFLES AND CARBINES IN POSSESSION OF LAND FORCES.

Branch of Service.	Rifles.	Carbines.	Total.
Permanent Forces	80	250	330
Cavalry ... ..	...	66	66
H. A. Battery ... ..	...	24	24
Field Artillery ... ..	...	36	36
Garrison Artillery	722	...	722
Engineers	175	...	175
Mounted Rifles	998	...	998
Rifles	2,753	...	2,753
Rifle Clubs	3,214	...	3,214
Total	7,942	376	8,318

937. The following is a statement of the number and calibre of the guns in possession of the Land Forces at the end of 1888:—

Guns of land
forces.

10-inch B.L. (26 tons) ...	1	40-pr. R.B.L. ...	6
10-inch „ (25 tons) ...	1	12-pr. „ ...	6
9·2-inch „ (18 tons) ...	3	6-pr. „ ...	6
8-inch „ (12 tons) ...	3	6-pr. Quick firing ...	8
6-inch „ (5 tons) ...	3	1-inch Nordenfelt (2 barrel)	2
6-inch „ (4 tons) ...	1	10 barrel „ (Rifle Cal.)	6
5-inch „ (3 tons) ...	11	5 barrel „ (Rifle Cal.)	9
5-inch „ (2 tons) ...	4	68-pr. S.B. ...	19
12½-pr. „ (7 cwt.) ...	18	42-pr. S.B. (Russian) ...	2
9-inch R.M.L (12 tons) ...	6	32-pr. S.B. ...	30
80-pr. „ (81 cwt.) ...	23		
3-pr. Whitworth ...	6	Total ...	174

938. The strength and establishment of the Naval Forces at the end of 1888 were as follow:—

Strength
and estab-
lishment
of naval
forces.

NAVAL FORCES.—STRENGTH AND ESTABLISHMENT, 1888.

Ship or Corps.	Strength, 31st December, 1888.				Wanted to Complete.	Establishment.
	Officers.	Petty Officers and Men.	Boys.	Total.		
H.M.V. Naval Forces ...	34	190	5	229	9	238
Naval Reserve ...	33	346	2	381	1	382
Total ...	67	536	7	610	10	620

Guns of
naval
forces.

939. The following guns were in the possession of the Naval Forces at the end of 1888 :—

<i>Cerberus</i> .—Woolwich, 10-in., 400-pr.	4	<i>Gordon</i> .—Nordenfelt	...	...	1
„ Nordenfelt	...	4	<i>Batman</i> .—4 ton, 6-in., B.L.	...	1
<i>Nelson</i> .—Woolwich, 7-in., 115-pr.	2	„ Nordenfelt	...	...	2
„ Shunt, 58 cwt., 64-pr.	...	20	<i>Fawkner</i> .—4 ton, 6-in., B.L.	...	1
„ Gatling	...	1	„ Gatling	...	2
<i>Victoria</i> .—12½ ton, 8-in., B.L.	...	1	<i>Gannet</i> .—4 ton, 6-in., B.L.	...	1
„ 4 ton, 6-in., B.L.	...	1	„ Nordenfelt	...	2
„ 13-pr., B.L.	...	2	<i>Lady Loch</i> .—4 ton, 6-in., B.L.	...	1
„ Nordenfelt	...	2	„ Nordenfelt	...	2
<i>Albert</i> .—12 ton, 8-in., B.L.	...	1	Naval Brigade.—Smooth-bore, 32-pr.	28	
„ 4 ton 6-in., B.L.	...	1	„ Howitzer, 12-pr.	2	
„ 9-pr., B.L.	...	2			—
„ Nordenfelt	...	2	Total	...	88
<i>Childers</i> .—Hotchkiss, 1½-in.	...	2			—

Small arms
of naval
forces.

940. The rifles in possession of the Naval Forces at the same period numbered 586. The total number of revolvers was 175.

New system
of defences.

941. Important changes in the system of Victorian defences were made in 1883 and 1884 by the passing of the *Discipline Act* 1883 (47 Vict. No. 777), which came into operation on the 3rd November of that year, by the engagement of British Naval and Military officers, and by the addition of several vessels to the Victorian fleet. The following account of the new system has been specially prepared for this work by the Defence Department :—

The *Discipline Act* of 1883 provides for the establishment of a paid Militia force; for a special appropriation of £110,000 per annum* for five years; a Council of Defence—consisting of the Minister of Defence (President), the Naval Commandant, the Military Commandant, the Officer Commanding the Naval Brigade, the Senior Officers of Metropolitan Artillery and Infantry; free railway travelling for Militia men in uniform on carrying a rifle; priority of appointment to the non-clerical division of the Public Service to Militia men who have served five years, etc.

Arrangements have been made with the owners by which two steamers engaged in the intercolonial trade have been strengthened to carry guns to enable them to act as cruisers.

The Admiralty, at the request of the Government, have consented to the appointment of officers from the R.N. for terms of service of three years in the Victorian Naval Forces. A captain and three lieutenants and one warrant officer have been so appointed.

GIFT OF £500.

A sum of £500 has been presented by the Hon. Sir W. J. Clarke, Bart., to be competed for by the naval and military forces of the colony. Regulations providing for spreading the expenditure of the amount over three years have been framed, prizes being offered not only for shooting, but for proficiency in drill and exercise, and for an essay on military subjects.

The following are the salaries and allowances of the Naval and Military officers and non-commissioned officers who may come out from England for service in Victoria :—

* It is contemplated to obtain Legislative sanction to continue the subsidy—increased to £145,000—for another five years.

NAVAL OFFICERS.

No.	Rank.	Pay per Annum.						Increment per Annum.
		Minimum.			Maximum.			
		£	s.	d.	£	s.	d.	£ s. d.
1	Naval Commandant	1,028	0	0*	1,028	0	0	...
1	Commander	400	0	0	600	0	0	15 0 0
1	Lieut.-Commander	555	2	6*	555	2	6	...
3	Lieut.-Commanders or Lieutenants †	410	12	6	410	12	6	...
3	Lieutenants	300	0	0	400	0	0	10 0 0
1	Sub-Lieutenant	200	0	0	200	0	0	...
1	Fleet Engineer	350	0	0	450	0	0	10 10 0
1	Chief Engineer	300	0	0	350	0	0	7 10 0
5	Engineers	200	0	0	300	0	0	7 10 0
1	Staff Surgeon	200	0	0	200	0	0	...
1	Paymaster	220	0	0	350	0	0	10 0 0
1	Clerk	80	0	0	200	0	0	10 0 0
1	Chief Torpedo Gunner	225	0	0	240	0	0	5 0 0
2	Chief Gunners	225	0	0	240	0	0	5 0 0
1	Chief Boatswain	225	0	0	240	0	0	5 0 0
3	Gunners, 1st Class	200	0	0	225	0	0	5 0 0
9	Gunners, 2nd Class	155	2	6	200	0	0	5 0 0
1	Carpenter, 2nd Class	155	2	6	200	0	0	5 0 0

NOTE.—The maximum pay of engineers not holding first-class certificates as such is not to exceed £250 per annum.

MILITARY OFFICERS.

Grade.	Salaries.	Allowances.			
		Quarters or Allowance in lieu.		Forage.	Other Allowances
	£	£	s. d.	£	
<i>Land Forces.</i>					
Colonel ...	1,000	250	0 0	150	...
Lieutenant-Colonel ...	800	250	0 0	75	...
Ditto ...	700	250	0 0	75	...
Major ...	700	250	0 0	75	...
Ditto ...	600	150	0 0	75	...
Serjeant-Major ...	180	36	10 0	...	Clothing
Ditto ...	180	36	10 0	...	"
Ditto ...	180	36	10 0	...	"
Ditto ...	180	Quarters.		...	"
Ditto ...	180	"		...	"
Ditto ...	180	"		...	"
Ditto ...	180	"		...	"
Torpedo Artificer ...	90	41	15 0	...	"
Total ...	5,150	1,301	5 0	450	

The following are the rates of pay of the petty officers, stokers, seamen, stewards, servants, etc., attached to the Victorian Naval Forces:—

* Including Admiralty half-pay.

† Imperial Officers appointed by the Admiralty.

PETTY OFFICERS, SEAMEN, AND OTHERS.

No.	Rating.	Daily Pay.				Increment per Diem.
		Mini- mum.		Maxi- mum.		
		s.	d.	s.	d.	
1	Chief Engine-room Artificer	11	0	12	0	1s. after 5 years
3	Engine-room Artificers	9	0	10	0	"
4	Chief Leading Stokers	6	6	7	0	6d. after 5 years
7	Leading Stokers	6	0	6	6	"
2	Torpedo Artificers	5	6	7	6	6d. per day per annum
2	Stokers	5	6	5	6	Nil
27	Stokers	5	0	5	0	Nil
3	Chief Petty Officers	6	6	7	0	6d. after 5 years
12	1st Class Petty Officers	6	0	6	6	"
11	Leading Seamen	5	6	5	6	Nil
79	Able Seamen	5	0	5	0	Nil
7	Training Seamen	3	6	3	6	Nil
1	Bugler	4	0	4	0	Nil
5	Boys	2	0	2	0	Nil
1	Chief Ship's Corporal	6	6	7	0	6d. after 5 years
1	Ship's Corporal	6	0	6	6	"
1	Chief Armourer	8	0	9	0	"
1	Chief Painter	6	6	8	6	6d. per day per annum
2	Carpenter's Mates	6	6	7	0	6d. after 5 years
1	Carpenter	5	6	5	6	Nil
4	Carpenters	5	0	5	0	Nil
1	Officer's Cook	5	6	6	0	6d. after 5 years
1	Ship's Cook	5	6	5	6	Nil
5	Cooks	5	0	5	0	Nil
1	Chief Ship's Steward	7	0	8	6	6d. per day per annum
1	Sick Bayman	6	6	8	6	" "
1	Captain's Steward	5	6	5	6	Nil
1	Officer's Steward	5	6	5	6	Nil
7	Officers' Stewards	5	0	5	0	Nil
2	Officers' Stewards (2nd Class)	4	0	4	0	Nil
*4	Officers' Servants	5	0	5	0	Nil
1	Naval Storekeeper	6	0	6	6	6d. per day per annum
1	Hulk-keeper	7	6	7	6	Nil

Tool money to 7 carpenters, at 3d. per diem.

Special allowance of 6d. per diem to 12 men who qualify as torpedo instructors, and 4d. per diem to 36 men who qualify as 1st class seamen, gunners, and torpedo men. A special allowance of 3d. per diem will be paid to 4 men to encourage them to qualify as divers.

RIFLE CLUBS.

The facilities granted to persons in districts where Militia Corps have not been established for the formation of Rifle Clubs have caused these associations to spring up very rapidly. In all, 134 clubs have been formed, consisting of 2,650 members to whom 2,020 M.-H. rifles have been sold, and 3,200 muzzle-loading rifles have been lent. The rifles are sold at less than the cost to the Government, and ammunition is supplied at half the actual cost; 368,000 rounds have been purchased by clubs during the current year (1888-9).

* These servants are held in accordance with special agreement with Lieutenants of the Royal Navy for the term of their engagement.

In order to encourage the practice of rifle shooting, Parliament voted the sum of £500 for prizes to Rifle Clubs. The Victorian Rifle Association set apart a similar amount for the same purpose, and the Hon. Colonel Sargood, C.M.G., presented a shield, valued at £40, for competition amongst these clubs; also a trophy of the same value for competition by mounted rifles only.

MOUNTED RIFLES.

A force of 1,010 Mounted Rifles has been raised, consisting of nine companies; they are drilled by itinerant sergeants-major. The formation of many detachments has been refused on account of distance from centres of district. The men, on being passed into the ranks, get M.-H. rifles and all accoutrements and horse gear free, with the exception of saddle, which each member supplies. Engagement is for a period of three years; but members may be re-engaged. After passing into the ranks, members must undergo a minimum of 12 daylight drills per annum. An annual course of musketry is carried out. Officers and non-commissioned officers, on passing the required examination, are appointed on probation for six months, when those who pass the final practical and theoretical test are confirmed in their appointments. 395 attended the Easter Encampment. A feature of the regiment at this camp was the excellent work done by the Signalling Corps. The force is very popular. Members purchase their own uniform.

RANGERS.

A force consisting of seven companies formed in connexion with the Rifle Clubs. The establishment is 850. The engagement is for a period not exceeding three years, but re-engagements will be permitted if sanctioned by the Commandant.

FIRST CLASS MILITIA RESERVE.

Regulations for the establishment of this reserve have been passed. It will consist of (a) all members of the militia passed to the 'reserve after completing three years' service in the ranks, and (b) such men now serving in the reserve (designated by these regulations the 2nd Class Reserve) or who may now or hereafter be serving in the Militia and effective on their electing to join and being recommended by the Commandant.

CADET CORPS.

The encouragement of drilling and rifle-shooting in the schools of the colony has led to the establishment of Cadet Corps. Cadet companies may be formed in any school in detachments of not less than 20. The Cadets are principally armed with Francotte rifles lent by the Government, and purchased ammunition is issued at half price, the same as to the Rifle Clubs.

The uniform of the State School corps is a simple and inexpensive one, varying in the different battalions, and is worn as the ordinary school dress. Accoutrements, waist-belt and pouch, no cross-belt.

The Drill Instructors of the Victorian Military Forces are permitted, at such times as they are not required for their ordinary duties, to drill Cadet companies, for which they are paid 2s. 6d. for each drill.

To stimulate the movement, Colonel Sargood has presented a handsome shield for competition by the Cadets. This trophy must be won three times before becoming the property of the winners. It has been already six times shot for. In March, 1884, it was won by the Hawthorn Grammar School; in December of the same year, by the East Sandhurst State School; in December, 1885, by the Chiltern State School; in 1886, by North Williamstown State School; in 1887, by the Kensington State School; and in 1888, by the Seymour State School.

There are now 98 corps established (numbering upwards of 2,800 Cadets), all provided with uniform at their own expense, in various parts of the colony. Each corps, under the regulations, must undergo drill for one hour per week, but, from returns furnished, the drill is far in excess of that demanded.

A trophy is offered for the best drilled corps in Melbourne and suburbs, which trophy must be won three times, not necessarily consecutively, before becoming finally the property of any corps. This trophy was won, in 1885, by State School

No. 1,479, St. Kilda; in 1886, by the Scotch College; in 1887 by the Latrobe Street State School (No. 1,274); and in 1888, by the Cambridge Street State School (No. 1,896).

The various Cadet Corps have been formed into battalions, as follow :—

No. 1 Battalion.—Comprising corps in Sandhurst, Eaglehawk, and Echuca.

No. 2 Battalion.—The Grammar Schools, Colleges, and State Schools south of the Yarra, etc.

No. 3 Battalion.—Geelong and Colac Colleges, Grammar and State Schools.

No. 4 Battalion.—Brighton, South Yarra and Prahran, Richmond, Lilydale, and Frankston State Schools.

No. 5 Battalion.—Ballarat, Maryborough, Ararat, Stawell—Colleges, Grammar, and State Schools.

No. 6 Battalion.—The Scotch College, Camberwell Grammar School, and the Senior Cadets.

No. 7 Battalion.—The State and Grammar Schools and Colleges in the Carlton district.

No. 8 Battalion.—The State Schools at Footscray, Kensington, Brunswick, Collingwood, Essendon, West Melbourne, and North Melbourne.

No. 9 Battalion.—The State Schools, Colleges, and Grammar Schools of Hamilton, Warrnambool, Casterton, Coleraine, and Portland.

No. 10 Battalion.—The State School in Maldon.

No. 11 Battalion.—The Grammar and State Schools in the North-Eastern district.

No. 12 Battalion.—The Grammar and State Schools in the Gippsland district.

On the 10th, 11th, 12th, and 13th October, 1888, a camp of instruction was held at Langwarrin, at which over 1,800 officers and Cadets attended. The encampment in 1887 was held at Elsternwick. The annual rifle matches, under the auspices of the Victorian Rifle Association, were fired on the 1st December at North Williamstown ranges.

Ammunition is issued "free" annually, at the rate of 150 rounds Francotte ball cartridges, and 50 rounds of blank cartridges for every boy regularly enrolled in a Cadet Corps.

The battalions are commanded by an officer with the rank of captain, and to the other Cadet officers a lieutenant's commission is issued by the Governor-in-Council upon their passing the prescribed examinations.

The Battalion of Senior Cadets now numbers about 350. The boys have all left school, and are engaged in various occupations. The uniform chosen is a Lincoln green, which looks very smart. So far the success of this battalion justifies the hope that the bridge has now been formed between the Cadet Corps and the Militia. The Senior Cadets are all armed with Martini-Henry rifles.

On the 20th February, 1889, the Cadet Corps in the Metropolitan districts paraded in Albert Park, when Lady Loch presented Colours to the successful Corps. These were the gift of Her Ladyship, and a yearly competition for their possession will take place, the Scotch College being the holders for the first year.

Defence
works.

942. Batteries for the defence of Melbourne were constructed in 1861-2 at Williamstown, Sandridge, and Queenscliff; but the battery at Sandridge is now set aside as unsuited to the requirements of modern warfare, which rendered it absolutely necessary to make the first line of defence of Port Phillip at the Heads. Lieutenant-General Sir W. F. D. Jervois, R.E., G.C.M.G., C.B., who visited the colony in 1877, suggested a plan for defending the channel between the Heads of Port Phillip, which he modified in March, 1879, in consequence of his having found when in England, during the year 1878, that great improvements had been made in the manufacture of, and modes of mounting, ordnance.

943. The Government adopted the plan of Sir William Jervois, and the construction of the works was commenced under the supervision of the late Major-General Sir P. H. Scratchley, R.E., K.C.M.G., and is now being carried out under that of Major Rainsford Hannay, R.E. The principal works are batteries at Queenscliff, Swan Island, and Point Nepean, and a fort placed upon a shoal on the north side of the South Channel. For the further protection of this channel, a fort has been erected on Point Franklin. During the last four years considerable sums have been spent on the various batteries. Most of the guns of "6" calibre have been, or are in process of being, mounted, and the erection of works for modern quick-firing guns is being proceeded with. It has been decided to construct a fort on the Pope's Eye shoal, situated in Port Phillip Bay not far from the entrance, and foundations are now being laid.

Progress of
the works.

944. The following table shows the expenditure of all kinds on military and naval defences for the financial year ended 30th June, 1889. The amounts expended under the heads "Victorian Artillery," "Militia," and "Naval Reserve," give an average cost per man per annum in each division respectively as £92 13s. 6d., £15 18s. 4d., and £20 17s. 1d.*:—

Expenditure
on defences,
1888-9.

MILITARY AND NAVAL EXPENDITURE, 1888-9.

MILITARY EXPENDITURE.						£	£
Head Office ...	...	...	...	...	...	...	5,819
Head Quarters Staff—Salaries ...	...	...	...	...	...	3,960	
" " Allowances ...	...	...	...	...	...	1,438	
							5,398
Victorian Artillery—Salaries and working pay ...	...	...	...	...	...	17,125	
" Allowances ...	...	...	...	...	...	6,600	
							23,725
Militia—Effective allowance ...	...	...	...	...	...	6,309	
" Pay of Cavalry ...	...	...	...	...	...	500	
" " Field Artillery ...	...	...	...	...	...	2,986	
" " Garrison Artillery ...	...	...	...	...	...	6,186	
" " Nordenfelt Battery ...	...	...	...	...	...	374	
" " Rifles ...	...	...	...	...	...	16,052	
" " Engineers ...	...	...	...	...	...	949	
" " Torpedo Corps and incidentals ...	...	...	...	...	...	5,112	
" Medical department ...	...	...	...	...	...	564	
" Ambulance Corps ...	...	...	...	...	...	160	
" Commissariat department ...	...	...	...	...	...	303	
" Drill instructors—Salaries and allowances ...	...	...	...	...	...	4,996	
" Lodging allowances and uniform ...	...	...	...	...	...	647	
" Horsing guns and forage ...	...	...	...	...	...	2,838	
" Travelling expenses ...	...	...	...	...	...	589	

* These calculations have been reckoned from the strength on the 31st December, 1888, viz.: 256 Victorian Artillery, 3,339 Militia, and 382 Naval Reserve.

MILITARY AND NAVAL EXPENDITURE, 1888-9—*continued.*

MILITARY EXPENDITURE— <i>continued.</i>					£	£
Militia—Allowance for bands	...	...	...	...	200	53,143
„ Incidentals	...	...	...	...	4,378	
Auxiliary Forces—Cadet Corps—Salaries, allowances, etc.	...	...	£861	...	3,954	15,098
„ Annual parade	...	...	700	...		
„ Free ammunition	...	...	893	...		
„ 500 Francotte rifles	...	...	1,500	...		
„ Mounted Rifles—Pay and contingencies	...	...	...	...	6,620	12,744
„ Rifle Clubs	...	...	...	...	4,524	
Ordnance Branch—Fitter and inspector machinery	...	...	...	...	240	7,600
„ Warlike stores	...	...	...	...	9,271	
„ Great coats, accoutrements, etc.	...	...	...	...	1,455	
„ Railway transport	...	...	...	...	1,778	
Purchase of Ammunition	...	...	...	...	5,000	5,000
„ Rifles and warlike stores	...	...	...	...	2,600	
Easter Encampment, 1889	...	...	...	...	...	3,426
Grant to Victorian Rifle and Artillery Association	...	...	...	...	1,000	
Ditto, ditto—(Special) for Centennial Matches	...	...	...	...	1,000	173,994
Prizes to Rifle Clubs and Queen's Prize (£100)	...	...	...	...	600	
„ Encouragement drill and shooting—Naval and military forces	...	...	...	...	826	642
Defence works and buildings	...	...	...	...	...
Compensation, gratuities, etc.	...	...	...	...	452	306,589
Miscellaneous	...	...	...	...	190	
Total	...	...	...	...	...	306,589
NAVAL EXPENDITURE.						
Naval Forces—Salaries and wages	...	...	...	...	28,398	38,611
„ Stores, clothing, fuel, etc.	...	...	...	...	9,540	
„ Repairs, machinery, etc., and expenses docking vessels	...	...	...	...	673	
Naval Reserve—Salaries and pay	...	...	...	...	6,116	7,967
„ Effective allowances	...	...	...	...	925	
„ Clothing and incidental	...	...	...	...	926	
Total	...	...	...	...	...	46,578
Grand Total	...	...	...	...	...	353,167

Expenditure
on defences,
1854 to 1889.

945. A statement of the expenditure on the establishment and maintenance of defences during the last thirty-five years and a half will be found in the following table:—

**EXPENDITURE ON THE ESTABLISHMENT AND MAINTENANCE OF
DEFENCES, 1854 TO 1888-9.**

Year.	Military Expenditure (including Buildings and Works of Defence).	Naval Expenditure.	Total.*
	£	£	£
1854 and 1855	287,973	...	287,973
1856 to 1864	758,000	123,000	881,000
1865	38,434	7,743	46,177
1866	47,647	14,453	62,100
1867	64,606	17,243	81,849
1868	58,873	19,061	77,934
1869	34,200	12,672	46,872
1870	37,102	10,570	47,672
1871 (6 months)	21,014	6,305	27,319
1871-2	38,634	19,604	58,238
1872-3	35,367	18,641	54,008
1873-4	41,050	17,643	58,693
1874-5	37,847	17,135	54,982
1875-6	40,698	17,536	58,234
1876-7	54,599	19,421	74,020
1877-8	62,842	58,424	121,266
1878-9	82,917	35,205	118,122
1879-80	60,420	33,359	93,779
1880-81	57,117	21,616	78,733
1881-2	59,589	21,845	81,434
1882-3	145,064	41,344	186,408
1883-4	205,596	25,442	231,038
1884-5	157,929	29,639	187,568
1885-6	281,092	37,886	318,978
1886-7	272,682	38,324	311,006
1887-8	281,206	40,913	322,119
1888-9	306,589	46,578	353,167
Towards cost of <i>Cerberus</i> and <i>Nelson</i> †	...	101,966	101,966
Total...	3,569,087	853,568	4,422,655
Arms, ammunition, and stores for defences generally‡	...	...	47,408
Value of land certificates granted to Volunteers, including Naval Brigade, computed at £1 per acre	...	...	139,683
Grand Total	...	...	4,609,746

946. It is to be specially noted that the total expenditure recorded includes not only the cost of establishing the military and naval defences but also the annual outlay incurred for their maintenance, Small expenditure on establishing defences.

* These figures, which are derived from the Departmental accounts, do not exactly agree in all cases with those taken from the Treasurer's Finance Statement and shown on page 156, Vol. I., owing to the closing of the accounts not being exactly simultaneous.

† The figures in this line do not represent the total cost of the vessels, but only so much of it as cannot now be apportioned to particular years.

‡ The figures in this line do not represent the total cost of the arms, ammunition, and stores, but only so much of it as cannot now be apportioned to particular years.

which annual outlay was estimated by the late General Scratchley to represent close upon seven-eighths of the total expenditure. The annual expenditure from 1854 to 1864 was unusually large, in consequence of Imperial troops serving in the colony; the last detachment of these was withdrawn in 1870. During the last four years the military expenditure was considerably larger than in any previous one, and of those the largest was in 1888-9, in which the excess, as compared with the previous year, was about £25,400. The naval expenditure in 1888-9 was about £5,700 more than in 1887-8, and was larger than in any previous year, except 1877-8. The total expenditure on defences during the last four years has averaged rather more than £326,000 per annum; although during the previous three years it was barely £200,000; and prior to 1882-3 it rarely exceeded £100,000.

Land forces
in Austral-
asian
colonies.

947. The land forces of the Australasian colonies at the end of 1888 numbered 33,392, of which 22,148 were upon the Australian Continent. The largest number were in Victoria, but two-fifths of these are attached to reserves, chiefly rifle clubs, of the members of which Victoria possesses 1,000 more than New South Wales, which colony has, however, 160 more regular soldiers and nearly 1,100 more volunteers than Victoria; but, in common with Western Australia, Tasmania and New Zealand, appears to have no militia. In the last-named colony, however, it is said that all adult males under 55 years of age are liable to be called out if required. The following is a statement of the land forces in each colony of the group:—

LAND FORCES IN AUSTRALASIAN COLONIES, 1888.

Colony.	Regular Troops.	Militia.	Volun- teers.	Reserves (including rifle clubs).	Total.
Victoria	330	3,339	1,852	3,739	9,260
New South Wales	492	...	2,930*	2,709	6,131
Queensland	105	2,193	1,011	...	3,309
South Australia	51	1,355	1,482	...	2,888
Western Australia ... ..	...	...	560	...	560
Total	978	6,887	7,835	6,448	22,148
Tasmania	118	...	561	1,459	2,138
New Zealand	194	†	8,912	...	9,106
Grand Total ‡	1,290	6,887	17,308	7,907	33,392

* Partially paid.

† In New Zealand there appears to be no regular militia, but all males between 17 and 55 are liable to be called out in time of necessity. These number approximately 151,000.

‡ Inclusive of cadet corps.

948. Only three of the Australasian colonies, viz., Victoria, Queensland, and South Australia, possess regular naval forces, and of these nearly two-thirds are maintained by Victoria. Victoria, also, as well as New South Wales, Queensland, and South Australia, possesses a few irregular naval forces who generally receive a small payment for their services, and are sometimes called the naval reserve. The largest number of forces of this description belongs to Victoria. New South Wales possesses 134, and New Zealand as many as 1,220 Naval Volunteers, but no other colony has an arm so designated. The following table contains a statement of the number of such forces in each of the colonies from which particulars have been received:—

Naval forces
in Austral-
asian
colonies.

NAVAL FORCES IN AUSTRALASIAN COLONIES, 1888.

Colony.				Regular Forces.	Forces only casually employed.*	Volunteers.	Total.
Victoria	...	...	...	229	381	...	610
New South Wales	...	...	...	...	342	134	476
Queensland	...	...	...	53	350	...	403
South Australia	...	...	...	80	90	...	170
Total	...	...	...	362	1,163	134	1,659
New Zealand	...	...	...	...	...	1,220	1,220
Grand Total	...	...	...	362	1,163	1,354	2,879

949. In 1888-9 Victoria spent over £350,000 on defences, or nearly half the amount so expended by all the colonies on the Australian continent, whilst New South Wales spent over £260,000, or nearly a third of that amount. The Australasian colonies, as a whole, spent over £800,000 on defences in the same year, as is shown in the following table:—

Defence ex-
penditure
in Austral-
asian
colonies.

EXPENDITURE ON DEFENCES IN AUSTRALASIAN COLONIES, 1888-9.

Colony.				Ordinary Expenditure.		Expenditure on Fortifications.	Grand Total.
				Military.	Naval.		
				£	£	£	£
Victoria	...	...	...	132,595	46,578	173,994	353,167
New South Wales	...	...	...	134,502	...	131,026	265,528
Queensland	...	...	...	50,905	10,870	15,583	77,358

NOTE.—The figures for New South Wales, Western Australia and Tasmania are for the calendar year 1888; those for the other colonies for the financial year 1888-9.

* Partially paid in some of the colonies.

EXPENDITURE ON DEFENCES IN AUSTRALASIAN COLONIES,
1888-9—continued.

Colony.	Ordinary Expenditure.		Expenditure on Fortifications.	Grand Total.
	Military.	Naval.		
	£	£	£	£
South Australia	32,545	12,141	...	44,686
Western Australia	3,216	...	92	3,308
Total	353,763	69,589	320,695	744,047
Tasmania	13,119	...	10,928	24,047
New Zealand	50,089*	...	...	50,089
Grand Total	416,971	69,589	331,623	818,183

Inspection
of Austral-
asian
troops.

950. The military forces of the Australasian colonies have recently been inspected by Major-General J. B. Edwards, a distinguished officer in the Imperial service, specially sent by the Horse Guards to perform that duty. General Edwards reports (9th October, 1889) that, so far as Victoria is concerned, the troops are in a satisfactory condition, and capable of fulfilling the duty for which they are maintained, viz., the defence of the colony. He, however, strongly recommends that, for the general defence of Australasia, there should be a federation of the forces of the different colonies.†

Ammuni-
tion
factory.

951. In July, 1887, Captain John Whitney, who had for some time been engaged upon the manufacture of cartridges for the New Zealand Government, submitted, on behalf of a company with which he was connected, certain terms on which he would undertake to establish an ammunition factory in Victoria. The site selected for the operations of this company is on the banks of the Saltwater River, near Melbourne. Its extent is five acres, and a lease thereof for five years at a peppercorn rent has recently been granted and ratified by Parliament, the conditions being that they erect an ammunition factory within twelve months from the 30th May, 1889, and deliver ammunition cartridges within twelve months from that date at the rate of half a million rounds every two months if required, which shall be equal in quality to those used in England and at the same price as those there used, with an allowance for freight, charges, and cost of delivery in Melbourne added, the Government to pay the company £5,000 as a bonus as soon as 500,000 rounds of ammunition

* Including Naval Expenditure and expenditure on harbour defence works.
† See Report by Major-General Edwards, Parliamentary Paper No. 139, Session 1889.

shall have been delivered, and to refund from time to time to the lessees such amounts up to £2,000 as they may have paid the Customs as duty on the machinery imported by them.

952. One cadetship at the Royal Military College, Sandhurst, England, is allocated annually to students of each university in the Australasian colonies to which a charter by letters patent has been granted. This includes the Melbourne University, as well as the universities of Sydney, Adelaide, and New Zealand. A candidate who is recommended for a cadetship must be within the limits of 17 and 22 years of age at the date of his joining the Royal Military College; he is required to enter the college within six months of his passing the requisite qualifying examination, otherwise his claim to a cadetship will lapse; and at least one month before the date of his entering, certificates of his age and moral character, together with a recommendation by the proper university authority, must be forwarded to the Military Secretary at the Horse Guards.*

Military
cadetships.

953. In the case of colonial candidates for commissions in the army who are not members of any university, an arrangement has been made whereby the ordinary preliminary examination held in London by the Civil Service Commissioners is dispensed with (except as regards geometrical drawing), upon the candidate producing a certificate of his having passed an equivalent examination in the colonies.*

Colonial
candidates
for the
army.

954. Commissions in the cavalry or infantry of the line will be granted to officers who are *bonâ fide* colonists under specified conditions as to age, physical and moral fitness, length of service, etc. The candidate will be required to undergo a qualifying literary examination in mathematics, French, German, or other modern language, geometrical drawing, a second more advanced examination, and finally a military examination, the text-books in this latter being those at the time in use at the Royal Military College, Sandhurst. Sets of examination papers in both literary and military subjects will be sent to the Governors of the respective colonies, and boards for the proper conduct of the examinations are to be held. The Governor of the colony to notify the War Office each year whether he has any qualified candidates to nominate. Till further notice, two army commissions will be allotted annually to Victoria, New South Wales, South Australia, Queensland, New Zealand, and the Cape of Good Hope.

Commis-
sions to
colonial
military
officers.

* For despatches respecting military cadetships and colonial candidates for army commissions, see *Government Gazettes* of the 22nd October, 1880, and 26th August, 1881.

Naval
cadetships.

955. Four nominations to naval cadetships are placed annually at the disposal of the Secretary of State for distribution to sons of gentlemen in certain colonies.* The Governor in any of such colonies has the right of submitting an application in favour of a candidate, with any recommendation he may think fit.† The qualifications of a candidate are—that he must be a colonist in the strict sense of the term, must not be less than 12 or more than 13½ years of age, must be in good health and perfectly free from any physical defect or disease, and must be able to pass a preliminary examination in English, Arithmetic, Elementary Algebra, Elementary Geometry, French, and Scripture History, obtaining not less than two-fifths of the whole number of marks assigned in each subject; and a second examination of any two of the following subjects, viz., Elementary Mathematics, Latin, Geography, and the outlines of English History. When a cadet is entered, he will be required to pay annually the sum of £70 for a period of two years, to be spent on board the *Britannia* training ship, besides expenses of outfit and of all necessary books or instruments, during which time he must pass four examinations in seamanship and study. He is subsequently to pay £50 per annum until he passes his final examination for the rank of lieutenant. The Lords of the Admiralty have decided to allow colonial candidates, who fail to pass at their first trial, the opportunity of being examined again in about six months time, provided they are still within the limits of age. Colonial candidates for cadetships were previously under a disadvantage in this respect, and the decision of the Admiralty is the consequence of their recognition of this fact.

* The colonies from which nominations will, in the first instance, be received, are—each of the Australasian colonies, Canada, Newfoundland, Jamaica, Antigua, Barbados, British Guiana, Trinidad, Cape Colony, Natal, Malta, Ceylon, and Mauritius; but should all the four nominations not be applied for by the end of the first quarter in each year, the balance will be made available for applications which may be received from other colonies.

† Revised regulations respecting naval cadets are published in the *Government Gazette* of 2nd September, 1887 (No. 83).

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APPENDIX A.

AUSTRALASIAN STATISTICS, 1888.

(Tables I. to XII. were published in Volume I.)

TABLE XIII.—CROWN LANDS ALIENATED AND IN PROCESS OF ALIENATION, 1888.

Name of Colony.	During the Year 1888.					
	Sold by Auction, Private Contract, etc.			Selected under System of Deferred Payments. ¹	Granted without Purchase.	Total Extent Wholly or Conditionally Alienated.
	Area.	Amount of Purchase Money.	Average Price per Acre.			
	acres.	£	£ s. d.	acres.	acres.	acres.
Victoria ..	22,413	221,904	9 18 0	53,738	522	76,673
New South Wales ..	157,193	381,887	2 8 7	791,826	3,309	952,328
Queensland ..	6,386	136,713	21 8 2	* ²	911	*
South Australia ..	8,280	10,432	1 5 2	5,809	..	14,089
Western Australia ..	21,583	6,154	0 5 8 ³	22,000 ⁴	..	43,583
Total ..	215,855	757,090	3 10 2	*	4,742	*
Tasmania ..	705	5,794	8 4 4	35,671	1,227	37,603
New Zealand ..	64,899	52,379	0 16 2	82,016	142,351 ⁵	289,266
Grand Total ..	281,459	815,263	2 17 11	*	148,320	*

Name of Colony.	Up to the End of 1888.—Extent—			At the end of 1888.—Extent—	
	Alienated in Fee Simple. ⁶		In process of Alienation under System of Deferred Payments. ⁷	Alienated or in Process of Alienation.	Neither Alienated nor in process of Alienation.
	Sold.	Granted without purchase.			
	acres.	acres.	acres.	acres.	acres.
Victoria ..	15,569,645	14,434	6,909,834	22,493,913	33,751,847
New South Wales ..	22,678,641	3,113,459	16,593,144	42,385,244	155,486,756
Queensland ..	9,399,424	66,849	1,460,784	10,927,057	416,736,303
South Australia ..	7,363,900	389,124	3,027,744	10,780,768	567,411,232
Western Australia ..	1,898,628 ⁸	.. ⁸	372,048	2,270,676	622,318,124
Total ..	56,910,238	3,583,866	28,363,554	88,857,658	1,795,704,262
Tasmania ..	*	*	*	4,612,400	12,267,600
New Zealand ..	12,998,416	6,245,928 ⁹	562,135	19,806,479	46,903,841 ¹⁰
Grand Total ..	*	*	*	113,276,537	1,854,875,703

*Where asterisks occur the information has not been furnished or cannot be completed.

¹ The purchase money for selected land varies in the different colonies from 10s. to 30s. per acre, payable by annual instalments (often without interest) extending over a period of 10 or 20 years. For particulars of the terms and conditions under which such land is acquired, see Part "Production," ante.

² The area leased was 1,683,207 acres, the lessees of which, in certain cases, have option of purchase on certain conditions under the *Land Act* of 1884.

³ This low average is explained by the circumstance that a large portion of the purchase money was previously paid as rent. The price of rural land is 10s. per acre.

⁴ Approximate only.

⁵ Of this area 54,643 acres were granted to Natives, or Europeans who purchased from them, under Native Land Acts.

⁶ Including only that of which the purchase has been completed.

⁷ Exclusive of the extent estimated to have been forfeited for non-fulfilment of conditions, etc.

⁸ In the case of Western Australia, land granted without purchase is included with the area "Sold."

⁹ These figures relate partly to lands in respect to which Crown grants have been issued either to the original Maori possessors, or to Europeans or Maoris who have purchased from them, under Native Land Acts.

¹⁰ Of this extent, about 14,000,000 acres belong to the Maoris, or to Europeans who have purchased from them; and 312 495 acres were held under "Perpetual Lease."

TABLE XIV.—STATE EDUCATION, 1888.

Name of Colony.	At the end of 1888.				Gross Enrolment of Scholars during 1888.		
	Number of State Schools.	Number of Teachers.			Males.	Females.	Total.
		Males.	Females.	Total.			
Victoria ..	1,933	1,693	2,541	4,234	125,645	116,401	242,046
New South Wales ..	2,271	1,976	1,937	3,913	110,950 ¹	101,200 ¹	212,150
Queensland ..	552	691	789	1,480	35,635	32,283	67,918
South Australia ..	536	405	529	934	26,060 ¹	24,365 ¹	50,425
Western Australia ..	93 ²	44	118	162	2,373	2,306	4,679
Total ..	5,385	4,809	5,914	10,723	300,663	276,555	577,218
Tasmania ..	220	172	257	429	9,329	7,796	17,125
New Zealand ..	1,128	1,258	1,581	2,839	79,850 ¹	72,371 ¹	152,221
Grand Total ..	6,733	6,239	7,752	13,991	389,842	356,722	746,564

Name of Colony.	Scholars in Average Attendance during the Year.			Estimated Number of Distinct Children Attending during the Year.	Expenditure on State Education. (Exclusive of expenditure on buildings, rent, etc.) ^s			Expenditure per head of—	
	Total Number	Number to each Teacher	Percentage of Scholars on the Rolls.		Amount contributed by—		Total.	Mean Population.	Scholars in Average Attendance.
					State. ⁴	Parents, etc., in Fees.			
Victoria ..	128,958	30	53·23	197,115	£ 626,257	£ 2,238 ^s	£ 628,495	£ s. d. 0 11 10	£ s. d. 4 17 6
New South Wales ..	112,220	29	52·90	186,692	442,973	69,554	512,527	0 9 8	4 11 4
Queensland ..	38,926	26	57·31	58,738	151,831	..	151,831	0 8 1	3 18 0
South Australia ..	28,329	30	56·18	45,236	87,803	24,101	111,904	0 7 0	3 19 0
Western Australia ..	3,659	23	78·20	4,000 ¹	9,208	1,469	10,677	0 5 1	2 18 4
Total ..	312,092	29	54·07	491,781	1,318,072	97,362	1,415,434	0 9 11	4 10 8
Tasmania ..	8,730	20	50·98	*	32,649	8,980	41,629	0 5 9	4 15 4
New Zealand ..	90,108	32	59·20	116,283	347,416	1,300 ^s	348,716	0 11 6	3 17 5
Grand Total	410,930	29	55·04	*	1,698,137	107,642	1,805,779	0 10 0	4 7 11

NOTE.—The State system of education is compulsory and undenominational (or secular) in all the colonies, and Western Australia is now the only colony which grants assistance to denominational schools. Public instruction is free in Victoria, Queensland, and New Zealand; but fees are charged in the other colonies, although they are partially or entirely remitted in cases where the parents are unable to pay them. The prescribed school age differs in the various colonies—in Victoria it was, at the time to which this table relates, from 6 to 15 years, but it has recently been altered to from 6 to 13 years; in New South Wales and Western Australia from 6 to 14, in Queensland from 6 to 12, in South Australia and New Zealand from 7 to 13, and in Tasmania from 7 to 14 years. For a complete account of the educational systems of the various colonies, see Appendix B., *post*.

* Where asterisks occur, the figures have not been furnished or are incomplete.

¹ These figures have been estimated in the office of the Government Statist, Melbourne.

² Including 16 assisted schools.

³ In previous years the amounts in this column were not on a uniform basis. Now it has been decided to include the whole cost of State (Primary) Education, exclusive only of expenditure on buildings (either for repairs or erection) and rent—including expenditure on Head Office staff and inspection.

⁴ Portion of the amounts in this column are derived from Education Reserves, etc., viz., £12,935 in South Australia and £29,143 in New Zealand.

⁵ For extra subjects only.

TABLE XV.—AGRICULTURAL STATISTICS, 1888-9.—LAND IN CULTIVATION.

* * The Agricultural Statistics in most of the colonies are collected in the months of February or March in each year. The present returns are for those months of 1889. In calculating the rates of tillage per head, the population on the 31st December, 1888, has been taken.

Name of Colony.	Number of Acres under Tillage.	
	Total.	Per Head of Population.
Victoria	2,564,742	2·35
New South Wales	999,204	·92
Queensland	214,002	·55
South Australia ⁵	2,793,037	8·77
Western Australia	106,015	2·52
Total	6,677,000	2·28
Tasmania	481,533	3·29
New Zealand	1,465,319	2·41
Grand Total	8,623,852	2·34

Name of Colony.	Number of Acres under—									
	Wheat.	Oats.	Barley.	Maize.	Other ¹ Cereals.	Pota- toes.	Hay.	Vines.	Green Forage. ²	Other ³ Tillage.*
Victoria	1,217,191	197,518	83,483	5,789	32,331	43,074	411,332	*12,886	192,515*	368,623*
New South Wales	304,803	7,984	3,318	166,101	985	15,419	209,531	7,072	228,808	55,183
Queensland	9,305	642	324	85,966	497*	7,303	20,978	1,703	11,281	76,003
South Australia ⁵	1,605,000 ⁵	7,264	15,697	..	4,601	5,666	308,429	4,590	33,296	808,494
West. Australia	30,739	1,787	5,009	61	720	481	23,914	894	268	42,142
Total	3,167,038	215,195	107,831	257,917	39,134	71,943	974,184	27,145	466,168	1,350,445
Tasmania	40,657	33,834	4,670	..	7,476	13,653	52,521	37	180,350	148,335
New Zealand	362,153	367,225	45,027	4,768	14,693	26,331	50,656	.. ⁶	419,555 ⁷	174,911
Grand Total	3,569,848	616,254	157,528	262,685	61,303	111,927	1,077,361	27,182	1,066,073	1,673,691

NOTE.—Land in fallow is included in the total area under tillage in all the colonies, except New South Wales; but land under permanent artificial grasses is not included in Queensland, Western Australia, and New Zealand. See also Notes 2, 3, and 7.

¹ Including beans and pease, except in the case of New South Wales.

² In addition to crops sown for the purpose of being cut green for cattle, this column contains the following areas laid down in permanent artificial grass in the colonies named:—Victoria, 184,966* acres; New South Wales, 200,332 acres; South Australia, 23,217 acres; Western Australia, only small area; Tasmania, 178,801 acres. In Queensland, where it is not so included, the area returned is 7,592 acres. For extent of such land in New Zealand, see Note 7.

³ In the returns of some of the colonies, this column embraces land in fallow as well as land under crop. The following are the areas in fallow included in the returns of such colonies:—Victoria, 332,586* acres; New South Wales (not returned); Queensland, 21,015 acres; South Australia, 450,536 acres; Western Australia, 40,317 acres; Tasmania, 20,603 acres; New Zealand, 142,747 acres. Total, 1,007,804 acres. The following is a statement of the acreage under various crops included in the same column, also of the produce so far as it has been given:—

Victoria—	Acres.	Produce.	Queensland (contd.)—	Acres.	Produce.
Turnips, carrots, parsnips, and beet ..	648	6,810 tons	Pineapples	581	187,747 doz.
Mangel-wurzel	897	13,974 ..	Tobacco	123	1,418 cwt.
Onions	1,768	4,430 ..	Tasmania—		
Tobacco*	1,688	13,355 cwt.	Turnips	4,420	33,273 tons
Chicory	148	811 tons	Mangel-wurzel ..	934	11,673 ..
Hops*	761	5,519 cwt.	Gardens and orchards	9,760	..
Grass seeds	1,541	17,444 bush.	Fenced and cleared land, not strictly under tillage, devoted to pastoral purposes	109,940	..
N.S. Wales—			New Zealand—		
Tobacco	4,833	55,473 cwt.	Mangolds, beet, carrots, parsnips, etc. ..	4,722	..
Sugar cane	15,281	..	Hops	564	6,210 cwt.
Of which productive ..	4,997	110,218 cwt.	Tobacco	34	255 ..
Orange trees	10,851	19,693,880 doz.	Gardens and orchards	23,807	..
Gardens and orchards	20,827	..	Other crops	3,037	..
Queensland—			Land broken up, but not under crop ..	142,747	..
Sugar cane	47,340	..			
Of which crushed	32,375	693,180 cwt.			
Arrowroot	149	254,870 lbs.			
Orange trees	1,068	742,417 doz.			
Bananas	2,220	6,320,858 ..			

* Rice. ⁵ No agricultural statistics having been collected in South Australia in the last four years, the figures for 1884-5, except in regard to wheat, which have been estimated, have been again repeated for that colony. ⁶ No account taken.

⁷ In the figures for New Zealand, the land under permanent artificial grass, amounting to 6,228,655 acres—of which about one-half had been, and the other half had not been, previously ploughed—is not entered as green forage, nor is it included in the total area under tillage, as in the majority of the other colonies. Were the whole so placed, it would bring the land under tillage up to 7,693,974 acres, or to 12·66 acres per head of the population.

* Slightly altered since publication of *Australasian Statistics*, 1888.

TABLE XVI.—AGRICULTURAL STATISTICS, 1888-9.—PRODUCE OF CROPS.

Name of Colony.	Bushels raised of—					Tons raised of—	
	Wheat.	Oats.	Barley.	Maize.	Other Cereals. ¹	Pota-toes.	Hay,
Victoria	8,647,709	2,803,800	1,131,427	267,155	372,468	131,149	308,117
New South Wales ..	1,450,503	109,931	36,760	4,910,404	12,899	36,839	134,911
Queensland	8,263	3,626	7,432	2,181,631	17,507	20,711	32,291
South Australia ² ..	6,187,000	43,584	109,879	..	32,207	11,332	104,214
Western Australia ..	322,739	41,852	73,630	1,769	14,000 ³	1,974	23,914
Total	16,616,214	3,002,793	1,359,128	7,361,009	449,081	202,005	603,447
Tasmania	819,497	946,354	109,979	..	124,954	66,721	58,290
New Zealand	8,770,246	10,977,065	1,402,537	207,275	357,061	133,682	71,296
Grand Total	26,205,957	14,926,212	2,871,644	7,568,234	931,096	402,408	733,033

Name of Colony.	Gallons of Wine made.	Bushels per Acre of—					Tons per Acre of	
		Wheat.	Oats.	Barley.	Maize.	Other Cereals.	Pota-toes.	Hay.
Victoria	1,209,442*	7.10	14.20	13.55	46.15	11.52	3.04	.75
New South Wales ..	805,813	4.76	13.77	11.08	29.56	13.10	2.39	.64
Queensland	144,239	.89	5.65	22.94	25.38	35.22	2.84	1.54
South Australia ² ..	400,000	3.85	6.00	7.00	..	7.00	2.00	.50
Western Australia ..	135,888	10.50	23.42	14.70	29.00	19.44	4.10	1.00
Total	2,695,382	5.25	13.95	12.60	23.54	11.48	2.81	.62
Tasmania .. ..	..	20.16	27.97	23.55	..	16.71	4.88	1.11
New Zealand .. ..	..	24.22	29.89	31.15	43.47	24.31	5.08	1.41
Grand Total	2,695,382	7.34	24.22	18.23	28.82	15.19	3.60	.68

¹ Including beans and pease, except in the case of New South Wales.

² No agricultural statistics having been collected in South Australia during the last four years, a rough estimate has been made of the produce of crops in that colony for 1888-9.

³ Estimated.

* See footnote (*) to last table.

TABLE XVII.—LIVE STOCK, 1888-9.

*** The Live Stock Statistics are collected in October in Western Australia, and in most of the other colonies simultaneously with the Agricultural Statistics, in the months of February and March.

Name of Colony.	Number of—				Total.
	Horses.	Cattle.	Sheep.	Pigs.	
Victoria	322,115	1,370,660	10,818,575	245,818	12,758,168
New South Wales ..	411,368	1,622,907	46,503,469	248,583	48,786,327
Queensland	324,326	4,654,932	13,444,005	68,994	18,492,257
South Australia ¹ ..	170,000	430,000	7,150,000	170,000	7,920,000
Western Australia ..	41,390	93,822	2,112,393	25,683	2,272,688
Total	1,270,199	8,172,321	80,028,442	758,478	90,229,440
Tasmania	29,238	142,019	1,430,065	43,227	1,644,549
New Zealand ²	187,382	895,461	15,122,133	369,992	16,574,968
Grand Total.. ..	1,486,819	9,209,801	96,580,640	1,171,697	108,448,957

¹ No statistics of live stock having been collected in South Australia during the last four years, the figures for 1888-9 have been estimated.

² The figures for New Zealand, except in regard to sheep—which are for May, 1888—are those returned at the census of March, 1886. They include 42,103 cattle, and 92,091 pigs belonging to the Maoris.

TABLE XVII.—LIVE STOCK, 1888-9—*continued*.

Name of Colony.	Horses.		Cattle.		Sheep.		Pigs.		Total.	
	Per Square Mile.	Per 100 Persons Living.	Per Square Mile.	Per 100 Persons Living.	Per Square Mile.	Per 100 Persons Living.	Per Square Mile.	Per 100 Persons Living.	Per Square Mile.	Per 100 Persons Living.
Victoria ..	3·68	30	15·60	126	123	992	2·80	22	145	1,170
New South Wales ..	1·34	38	5·25	149	150	4,283	·80	23	158	4,493
Queensland ..	·49	84	6·97	1,201	20	3,470	·10	18	28	4,773
South Australia ¹	·19	53	·48	136	8	2,246	·19	53	9	2,488
Western Australia	·04	98	·10	223	2	5,013	·03	60	2	5,394
Total ..	·43	43	2·78	279	27	2,737	·26	26	31	3,085
Tasmania ..	1·11	20	5·38	97	54	978	1·64	30	62	1,125
New Zealand ² ..	1·80	31	8·59	147	145	2,490	3·55	61	159	2,729
Grand Total ..	·48	41	2·99	250	31	2,626	·38	32	35	2,949

¹ No statistics of live stock having been collected in South Australia during the last four years, the figures for 1888-9 have been estimated.

² The figures for New Zealand, except in regard to sheep—which are for May, 1888—are those returned at the census of March, 1886. They include 42,103 cattle, and 92,091 pigs belonging to the Maoris.

TABLE XVIII.—WOOL PRODUCE, 1888.

Name of Colony.	Wool Imported.		Wool Exported.		Wool Manufactured in the Colony.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value, at 1s. 4d. per lb.
	lbs.	£	lbs.	£	lbs.	£
Victoria ..	65,963,561	2,704,060	118,453,968	5,170,930	1,653,554	110,237
New South Wales ..	7,317,827	237,647	243,256,253	9,358,515	700,000 ²	46,666
Queensland ..	..	..	50,675,289	2,258,365	..	..
South Australia ..	9,061,003	233,534	50,596,091	1,610,456	115,000 ²	7,667
Western Australia ..	..	..	8,475,240	423,762	..	..
Total ..	82,342,391	3,225,241	471,456,841	18,822,028	2,468,554	164,570
Tasmania ..	..	..	6,977,038	306,930	157,400	10,493
New Zealand ..	13,783	474	83,225,733	3,115,008	4,079,563	271,970
Grand Total ..	82,356,174	3,225,715	591,659,612	22,243,966	6,705,517	447,033

Name of Colony.	Wool Production, 1888.				Proportion of Exports of Wool to Total General Exports.	Average Export Price per lb.
	Quantity. ¹		Value.			
	Total.	Average to each Sheep in the Colony.	Total.	Average per Head of Population.		
	lbs.	lbs.	£	£ s. d.	per cent.	d.
Victoria	54,143,961	5·00	2,577,107	2 8 6	37·33	10½
New South Wales ..	236,638,426	5·09	9,167,534	8 12 3	44·86	9½
Queensland	50,675,289	3·77	2,258,365	5 19 9	36·86	10½
South Australia ..	41,650,088	5 83	1,334,589	4 3 11	23·06	7¾
Western Australia ..	8,475,240	4·01	423,762	10 0 4	62·29	12
Total	391,583,004	4·89	15,761,357	5 10 1	38·81	9½
Tasmania	7,134,438	4·99	317,423	2 4 0	23·01	10½
New Zealand	87,291,513	5·77	3,386,504	5 11 11	40·11	9
Grand Total	486,008,955	5·03	19,465,284	5 7 9	38·61	9½

¹ These figures are made up of the sum of the total quantities exported from and used for manufactures in, less the quantities imported by, the respective colonies. The wool referred to is, of course, not homogeneous in quality, some being greasy and some washed and scoured. The Government Statistician of New South Wales has estimated that the equivalent weight in greasy wool of the whole clip for that colony was £69,739,000 lbs.

² Estimated.

TABLE XIX.—GOLD PRODUCE.

Name of Colony.	Gold raised—					
	Prior to 1888.		During 1888.		Total.	
	Quantity.	Value. ¹	Quantity.	Value. ¹	Quantity.	Value. ¹
	oz.	£	oz.	£	oz.	£
Victoria	55,010,933	220,043,732	625,026	2,500,104	55,635,959	222,543,836
New South Wales ..	9,845,907	36,470,309	85,295	308,821	9,931,202	36,779,130
Queensland	5,607,142	19,624,997	481,643	1,635,750	6,088,785	21,310,747
South Australia ² ..	235,845	925,251	16,763	66,160	252,608	991,411
Western Australia ..	4,873	19,492	50,000	200,000	54,873	219,492
Total	70,704,700	277,083,781	1,258,727	4,760,835	71,963,427	281,844,616
Tasmania	493,279	1,884,712	39,610	147,154	532,889	2,031,866
New Zealand	11,220,598	44,042,567	201,219	801,066	11,421,817	44,843,633
Grand Total	82,418,577	323,011,060	1,499,556	5,709,055	83,918,133	328,720,115

NOTE.—The figures for Victoria, New South Wales, and Queensland express the quantity and value of all the gold known to have been raised in those colonies since the period of its first discovery in Australia in 1851; those for South Australia are estimated chiefly from the returns of the Melbourne and Sydney Mints, and partly from the export returns; those for New Zealand express the total exports of gold from the earliest period; and those for Tasmania express the quantity known to have been raised since 1866, there being no record of the gold raised prior to that period. There are no reliable returns of the gold raised in Western Australia, although a considerable quantity has been obtained on the Kimberley gold-fields of that colony; the estimate for 1888 is very vague, and that for previous years being obtained from the Customs returns alone is much understated.

¹ The purity, and consequently the value, of gold varies considerably in different localities. In Victoria the average value is set down as £4 per oz., and in Queensland as £3 10s. per oz. Standard gold (*i.e.*, 22 carats fine) is worth £3 17s. 10½d., and pure gold £4 4s. 11½d. per oz.

² Including Northern Territory.

TABLE XX.—SAVINGS BANKS, 1888.

(Including both General and Post Office Savings Banks.)

Name of Colony.	On the 31st December.				Rates of Interest allowed to Depositors.
	Number of Depositors.		Amount remaining on Deposit.		
	Total.	Per 100 of the Population.	Total.	Average to each Depositor.	
			£	£ s. d.	per cent.
Victoria	247,425	22·68	4,881,198	19 14 7	4
New South Wales	128,297	11·82	4,037,675	31 9 5	4 to 5
Queensland	43,003	11·10	1,611,876	37 9 8	5 ¹
South Australia	62,365	19·59	1,759,592	28 4 3	5
Western Australia	3,096	7·35	30,808	9 19 0	3½
Total	484,186	16·56	12,321,149	25 8 11	3½ to 5
Tasmania	23,090	15·80	469,928	20 7 0	4½ to 5
New Zealand	103,046	16·96	2,691,693	26 2 5	4½ to 5
Grand Total	610,322	16·60	15,482,770	25 7 4	3½ to 5

¹ This rate is allowed on deposits up to £100; above that amount, 4 per cent.

TABLE XXI.—STATISTICS OF FIJI, 1878 TO 1888.

* * Fiji consists of from 70 to 80 inhabited islands, the estimated area of which is 7,500 square miles. There are also about 150 smaller islands uninhabited. The total area of the group is estimated to be 7,740 square miles.

Year.	Estimated Population on the 31st December.			Births. ¹	Deaths. ¹	Marriages ¹	Immigrants (Poly-nesi-ans and Coolies only).		
	Males.	Females	Total.				Males.	Females	Total.
1878	64,748	52,350	117,098	2,262	2,244	419	1,346	174	1,520
1879	67,697	52,962	120,659	3,654	3,532	1,356	2,098	288	2,386
1880	67,598	54,286	121,884	4,103	4,326	1,358	2,500	34	2,534
1881	71,323	57,188	128,511	4,321	4,411	1,056	1,100	58	1,158
1882	72,376	57,703	130,079	4,552	4,933	1,280	2,561	511	3,072
1883	71,540	58,354	129,894	4,649	5,310	1,097	2,013	546	2,559
1884	71,011	57,512	128,523	4,540	5,592	978	2,292	980	3,272
1885	69,860	57,419	127,279	4,319	5,775	1,133	1,422	736	2,158
1886	68,727	57,283	126,010	4,253	5,502	1,155	..	..	1,273
1887	66,144	58,514	124,658	4,749	4,365	1,167	..	..	276
1888	66,635	58,806	125,441	4,709	4,236	966	627	190	817

Year.	Emigrants (Poly-nesi-ans only).			Public Revenue.			Public Expend-iture.	Public Debt.	Value of Imports	Value of Ex-ports.
	Males.	Fe-males.	Total.	Raised by Taxa-tion.	Not raised by Taxa-tion.	Total.				
1878	638	71	709	£ 42,697	£ 18,324	£ 61,021	£ 65,267	£ 100,000	£ 136,603	£ 192,865
1879	313	32	345	46,260	21,511	67,771	71,108	120,000	142,213	169,040
1880	170	18	188	46,544	34,134	80,678	91,102	210,000	185,741	229,528
1881	860	24	884	49,606	37,837	87,443	89,960	254,025	276,040	174,146
1882	1,066	73	1,139	59,518	51,796	111,314	109,986	254,025	303,329	190,517
1883	1,251	94	1,345	74,805	32,009	106,814	88,277	254,025	450,595	351,998
1884	693	60	753	68,162	23,361	91,523	98,468	254,025	434,522	345,344
1885	1,681	265	1,946	62,935	13,684	76,669	92,209	264,025	294,585	326,750
1886 .. ..	..	..	2,113	51,882	12,692	64,574	78,133	264,695	230,742	283,496
1887 .. ..	..	..	1,634	41,616	23,300	64,916	73,150	265,389	188,071	281,080
1888	267	31	298	44,223	20,795	65,018	58,993	253,289	183,222	376,978

Year.	Shipping.				Crown Lands Granted and Sold in each Year. ²	Live Stock. ³			
	Inwards.		Outwards.			Number of—			
	Vessels.	Tons.	Vessels.	Tons.		Horses.	Cattle.	Sheep.	Pigs.
1878	124	23,180	128	24,080	acres.	200	3,000	3,100	50,000
1879	131	28,967	125	28,085	39,476	300	4,000	3,771	50,000
1880	157	32,933	150	32,689	23,559	360	5,000	4,769	50,000
1881	164	35,542	160	35,230	27,562	400	5,000	4,769	50,000
1882	163	43,768	165	43,757	75,627	600	5,000	4,000	50,000
1883	198	68,530	193	69,322	65,745	600	5,324	5,373	50,000
1884	150	63,246	144	64,731	31,665	610	4,600	5,869	50,000
1885	124	54,056	135	55,892	38,325	650	5,953	6,350	50,000
1886	118	54,132	113	51,237	26,368	567	6,841	6,055	50,000
1887	119	46,902	118	44,865	14,028	647	6,778	6,508	1,711*
1888	106	49,579	110	51,548	8,120	684	6,754	6,996	1,903*

NOTE.—The following additional information has been supplied for the year 1888 :—Birth rate, 37·54; death rate, 33·77; marriage rate, 7·7, per 1,000 persons living. *Immigration*—Unassisted (not included above), 513 in 1887, and 482 in 1888: *Emigration*, 798. *Sources of revenue*—Customs duties, £24,571; other taxes, £19,652; Crown lands, £142; other sources, £20,653. *Heads of Expenditure*—Interest on public debt, £9,019; post office, etc., £764; immigration, £4,698; other expenditure, £44,512. *Public Debt*—Of the public debt only £137,000 bears interest. *Imports and Exports*—Of the total value of imports, £172,465 was from the Australasian Colonies, £43 from the United Kingdom, and £10,756 from other countries; and of the total value of exports, £341,437 was to Australasian Colonies, and £35,531 to other countries; 98 per cent. of the exports were of Fijian production. *Postal Returns*—Number of offices, 36; letters, 189,174; newspapers, 170,788. *State Education*—Number of schools, 2; teachers, 5; viz., 2 males and 3 females; scholars on the rolls, 176; viz., 82 males and 94 females; average attendance, 165; cost, excluding buildings—contributed by State, £477, by parents in fees and rates, £686—total, £1,163. *Agriculture*—Land under cultivation (by whites only), 36,755 acres, of which 357 acres were under maize; 19,000 acres under coconuts; 13,800 acres under sugar-cane; 2,300 acres under bananas; 325 acres under tea; and 1,350 acres under cotton, coffee, tapioca, and other crops. The quantity of maize exported was 12,968 bushels, and probably as much more is consumed locally.

¹ It is believed by the Registrar-General of Fiji that the births, deaths, and marriages here given are less than those which actually occurred.

² The total area alienated at the end of 1888 was 405,550 acres, and the area unalienated about 4,500,000 acres. The amount realised by the State for sales of land to the end of 1888 was only £26,446, which, however, represents the price of but a small proportion of the acreage alienated. The majority of the grants issued were for lands acquired by whites and others previously to annexation, and these received their titles at the nominal price of one shilling.

³ In addition to the live stock referred to in these columns, about 11 400 angora goats were kept on the islands.

* Returns from Europeans only.

APPENDIX B.

EDUCATION SYSTEMS OF THE AUSTRALASIAN COLONIES.*

Complete accounts of the Education Systems prevailing in the various colonies were first published in the *Victorian Year-Book*, 1880-81, and these have been recently carefully revised and brought up to the latest date by the Head of the Department of Public Instruction in each colony. In order to make the accounts uniform and easy of reference, they have been divided into sections in accordance with the subjoined classification:—

CLASSIFICATION OF EDUCATION SYSTEMS.

1. ESTABLISHMENT OF SYSTEM.—Date of establishment, statutes whereby legalized, etc.
2. GENERAL FEATURES.—Whether denominational, secular, compulsory, free, etc.
3. MANAGEMENT.—General administration, local boards, kinds of schools, cost, etc.
4. TEACHERS.—Appointments, examination and classification, emoluments, promotions, retiring allowances, training schools, etc.
5. SCHOLARS.—School age, compulsory attendance with penalties, school fees, etc.
6. COURSE OF INSTRUCTION.—School hours, religious instructions, ordinary subjects, extra subjects.
7. SECONDARY PUBLIC SCHOOLS.—When to be established, etc.; number and particulars of any established.
8. EXHIBITIONS AND SCHOLARSHIPS.—To advanced schools; to universities.
9. RESULTS FOR 1888.—Statistics of schools, teachers, scholars, cost, etc.
10. MISCELLANEOUS.

EDUCATION SYSTEM OF VICTORIA.*

(Compiled in the Department of Public Instruction, Melbourne.)

1. ESTABLISHMENT OF SYSTEM.

When estab-
lished.

The system of primary instruction in Victoria was established by an Act of Parliament, entitled *The Education Act* 1872, 36 Victoria No. 447, which came into operation on the 1st January 1873, and which was amended by the *Education Act Amendment Act*, 40 Victoria No. 541, which received the Royal assent, 24th October 1876. It has just been further amended by *The Education Act* 1889, 53 Victoria No. 1,023.

2. GENERAL FEATURES.

General
features.

The education provided under the Act is strictly secular, it being forbidden for any one to impart religious instruction during school hours, or for the teacher to do so at any time; it is compulsory in the case of children between the ages of 6 and 13, with certain exceptions†; and it is free, no fees being charged for teaching the subjects comprised in the ordinary course of instruction.

3. MANAGEMENT.

Education
Depart-
ment.

The principal Act, which repealed the *Common Schools Act*, created a department of Education presided over by a responsible Minister of the Crown, and transferred to the latter all the property previously vested in the Board of Education, together with the control of all primary schools receiving aid from the State.

* An interesting account of the relative efficiency of the school systems of Victoria, New South Wales, and South Australia, by two leading officers of the Education Department of the first named colony, appeared as an appendix to the Report of the Victorian Minister of Public Instruction in 1888-9, Parliamentary Paper No. 98, Session 1889.

† See page 488 post. The compulsory age was until recently 6 to 15.

The regulations necessary for giving effect to the provisions of the *Education Act* are made by the Governor in Council, but all such regulations must be laid before both Houses of Parliament, before which also must be laid an annual report on the condition of the schools. Regulations and reports

Every locality in which a State school is established is termed a school district, which is presided over for local purposes, subject to the direction of the Minister, by a board of advice. Such boards consist of not less than 5 nor more than 7 members elected by the ratepayers, and holding office for not more than three years. Their duties are :— Local school boards.

- (I.) To direct, with the approval of the Minister, what use shall be made of school buildings after the children are dismissed from school or on days when no school is held therein; to suspend any school teacher for misconduct and report the cause of such suspension to the Minister :
- (II.) To report on the condition of the schools, as to the premises and their condition, whether new schools are required, and as to books, furniture, gymnastic appliances, or other requirements :
- (III.) To visit the schools from time to time, and to record the number of children present, and their opinion as to the general condition and management of the schools :
- (IV.) To use every endeavour to induce parents to send their children regularly to school, to compare the attendance of children at school with the roll for the school district, and to report the names of parents who fail or refuse to educate their children or to send them to school.
- (V.) To recommend the payment by the Education Department of school fees or the grant of a scholarship or exhibition in the case of any child displaying unusual ability.

The number of school districts in the colony at the end of 1888 was 349, their boundaries generally coinciding with those of the cities, towns, boroughs, and shires. Number of school districts.

The schools carried on under the Act are known as State schools, a term which is defined as meaning schools conducted in buildings vested in the Minister of Public Instruction, and as including training schools, rural schools, night schools, and any other special schools for which regulations may be made. Kinds of schools.

The cost of Public Instruction during the year ending 30th June, 1889, was £787,860 1s. 7d., including the expenditure on buildings, but this sum includes a grant of £11,000 to the University, and of £24,092 19s. 8d. for technical schools.* Cost.

4. TEACHERS.

Teachers are of two divisions, classified and unclassified. None but classified teachers can be employed in classified schools, and certificates of qualification for teaching in these schools can be obtained only by passing examinations held by the Education Department of the colony. By a recent Act, namely, Act 1,001, the Minister of Public Instruction was empowered to declare any school having, or expected to have, a less average attendance than twenty to be unclassified, and to appoint to such school a teacher not classified under the department, but holding a satisfactory literary certificate, either from the Department itself or from some other educational body, and having in addition satisfied one of the Department's inspectors of schools that he is able to impart elementary instruction. Examination and classification of teachers.

The lowest qualification for a classified teacher is that of "the licence to teach," the other grades of qualification being "the certificate of competency," "the trained teacher's certificate," "second honours," and "first honours." The requirements for these qualifications are the following :—

1. Licences to teach will be granted—

- (a) To candidates who have passed in all subjects for a certificate of competency, except those included under "Theory and Practice of Teaching," on their passing an examination in the "Art of Teaching."
- (b) To pupil teachers who have completed their course.
- (c) To teachers classified in the second division of competency under Act CXLIX.

* For detailed particulars of the expenditure on Public Instruction, see paragraph 832 *et seq.*, in the body of this work.

- (d) To teachers employed under the former National or Denominational Board previous to the 1st October, 1857, on their passing an examination in the "Art of Teaching."
2. Certificates of competency will be granted to candidates upon examination, and to those classified in the first division of competency under Act CXLIX.
3. Trained teachers, and teachers classified in honours, will have their additional qualifications entered upon their certificates.
4. The requirements in "Art of Teaching" for a licence to teach will be—
To give a satisfactory lesson to a class in reading, writing, arithmetic, grammar, or geography; to keep the class in order, attention, and activity; and to be able to drill a class.*
5. The examination for a certificate of competency will comprise the following subjects—
Reading.—To read fluently, and with proper expression and emphasis, both prose and poetry, from any book or newspaper.
Dictation and Composition.—To write from dictation, with correct spelling and punctuation, from any ordinary book or newspaper, and to compose a short essay on some given subject.
Writing.—To write neatly full or half text and small hands.†
Grammar.—Grammar, including structure of words, analysis and syntactical parsing; to answer questions on the language and subject-matter of a book of some standard English author, to be prescribed from time to time.
Geography.—The form, motions, magnitude, and measurement of the earth; latitude and longitude; the surface of the earth, including mountain systems, plateaux, plains, and valleys, volcanoes and their distribution, river systems and lakes, oceans and their phenomena; climatology, including winds, heat, and moisture; distribution of plants and animals; descriptive and political geography of the world generally; map drawing.
Arithmetic.—Arithmetic generally, book-keeping, and elements of mensuration.
History.—General outlines of history of the British Empire, with a more detailed knowledge of Australasian discovery and settlement, and of the history of Victoria.
Elementary Science.—A knowledge of the subjects specified under "Elementary Science" in the programme for pupil teachers.
Needlework.—Females to be able to cut out and to do any kind of plain needlework, to darn and to knit, and to teach such work.
Theory and Practice of Teaching.—
 (a) To compose the notes of, and to give, a collective lesson on a subject chosen by the inspector; to be able to drill a class.*
 (b) To answer questions in school organization and management, and methods of teaching. A knowledge of the subjects to be treated of, and of the methods to be adopted, in giving lessons on morals and manners will be included under this head.
 (c) Males to draw up and carry out a time-table suitable for the school of which the candidate has charge.
6. The requirements for classification in honours will be as under—
For Second Honours:
 (1) To have obtained one of the first four literary qualifications prescribed for a third class teacher under the *Public Service Act*; and

* Knowledge of class drill is held to comprise: *Ability of a teacher.*—1. When standing apart from his class (i.e., where he cannot touch the scholars), by word of command alone, to move it from the desks into the body of the school-room and place it in a gallery, if there be one, or, if not, replace it in the desks. 2. To arrange a class (by word of command) at intervals or half intervals. 3. To carry his class (by word of command) through a set of extension exercises. Also to be fully acquainted with, and to put his class through, so much drill as is comprised in the following words of command:—"Fall in," "Number off," "Prove," "Stand at ease," "Attention," "Eyes right," "Eyes left," "Eyes front," "Dress," "Right close," "Left close," "Right turn," "Left turn," "Right about turn," "Left about turn," "Right half turn," "Left half turn," "Quick March," "Halt—mark time," "Forward," "Front, right (or left) wheel (in file)," "Right about (or left about) wheel (in file)."

† The general character of the writing in the examination papers will be considered in judging of this subject.

- (2) To have passed at the Melbourne University the first ordinary examination for the degree of Bachelor of Arts; or to have passed in four of the subjects prescribed for the first ordinary examination, at least two of which must be passed at one examination, and the remaining subject or subjects at one examination held in the same or the next succeeding academic year.

The first four literary qualifications prescribed for a third-class teacher under the *Public Service Act* are the following—

1. To be certificated (that is, to possess the certificate of competency), and to have also passed the matriculation examination.
2. To be certificated, and to hold two of the Department's science certificates.*
3. To have obtained the trained teacher's certificate subsequently to 31st December, 1875.
4. To have obtained a trained teacher's certificate of first or second class under the [Victorian] Board of Education.

For First Honours :

To have obtained second-class honours, and to have passed at the Melbourne University the second or the third ordinary examination for the degree of Bachelor of Arts; or to have obtained second-class honours, and to have passed in four of the subjects prescribed for the second ordinary examination in the course for the degree of Bachelor of Arts, at least two of which must be passed at one examination, and the remaining subject or subjects at one examination held in the same or the next succeeding academic year.

Provided that the candidate, unless he hold a trained teacher's certificate, shall have passed at some examination of the University of Melbourne—(a) in Latin or Greek, and also (b) in Mathematics, as in any ordinary examination for the completion of a year, or in Algebra and Geometry, as in the Matriculation Examination.

Provided also that no teacher shall be classified in first or second honours against whom an unfavourable report shall have been recorded at any time during the two preceding years.

7. Examinations for certificates of competency will be held annually at Melbourne, and such other places as the Minister may appoint, when all male candidates of eighteen years of age, and female candidates of seventeen years, except pupil teachers of the second or a lower class, who present themselves for examination, and who produce satisfactory certificates of moral character and health, may be examined in the literary subjects required.

8. Candidates must bear their own travelling expenses; and all candidates who are not actually employed as teachers, pupil teachers, or sewing mistresses will be required to pay a fee of ten shillings previous to examination.

A special certificate—the “Trained Teacher's Certificate”—is granted to teachers who successfully pass through the two years' course of training provided for in the regulations of the department. For admission to the first year's course of training, candidates must be recommended by an inspector and must be either first-class pupil teachers, matriculated students at the Melbourne University, or persons who have passed the literary examination for first-class pupil teachers. The training during the first year is conducted by the head teachers of about twenty district training schools, termed associated schools, situated in various parts of the colony, and to complete the first year's course students must spend a year in one of these schools as first-class pupil teachers or assistants and pass a satisfactory examination in the following subjects:—

Reading,
Dictation,
Composition,
Writing,
Grammar,
Geography,
Arithmetic,

As may be from time to time prescribed for the certificate of competency.

Training of
teachers.

* A science certificate is granted, upon examination, for each of the following subjects or groups:—Botany, Chemistry, Dynamics and Heat, Electricity and Magnetism, Geology and Mineralogy, Metallurgy, Physiology, Sound and Light.

History.—General outlines of history of the British Empire, with a more detailed knowledge of Australasian discovery and settlement, and of the history of Victoria.

Euclid.—Book I.

Algebra.—The four simple rules, and easy simple equations.

Latin, or }
French, or } Accidence and easy exercises.
German, }

Theory and Practice of Teaching.—Discipline, methods of teaching, registration; preparing lesson notes and giving class lessons; class drill.

During the first year's course students will be required to attend regularly the meetings of the school to which they are attached, and to take part in the ordinary work of the school for at least half of each day—or for a greater portion, at the discretion of the head teacher. The time not employed in actual teaching will be devoted, under the direction of the head teacher, to the study of the subjects prescribed above.

The subjects of study during the second year are as follow :—

1. *Theory and Practice of Teaching*—

- (a) The leading principles of education; the faculties, their training and development; habit and character.
- (b) School organization and management; methods of teaching; notes of lessons.
- (c) Controlling and teaching a class or two classes simultaneously; and class drill.
 (Marks obtainable at final examination—150.)

2. *English Language and Literature*—

Structure of the English language; Chaucer and the chief authors since, with a knowledge of prescribed selections;

Or *History of England and Australia*—

- (a) Outlines of history of British Empire.
- (b) History of a selected period in detail.
- (c) History of the Australasian Colonies.
 (Marks obtainable at final examination—100.)

3. *Mathematics*—

Geometry.—Euclid, Books I.-III.; and Algebra—To easy quadratic equations.
 (Marks obtainable at final examination—100.)

4. *Latin*—

A general knowledge of the Grammar;
 Translation of easy Latin from a prescribed book;

Or *French*—

The Grammar; Translation of French prose and poetry from a prescribed book; translation of English into French;

Or *German*—

The Grammar; Translation of German prose and poetry from a prescribed book; translation of English into German.
 (Marks obtainable at final examination—100.)

5. *Science*—

- Elementary Physics;
- or Elementary Chemistry;
- or Elementary Physiology;
- or Elementary Botany.

(Marks obtainable at final examination—100.)

- | | | | |
|--|-----|---------|--|
| 6. <i>Music</i> ... | ... | ... | (Marks obtainable at final examination, 50). |
| 7. <i>Drawing</i> ... | ... | ... | (" " " " 50). |
| 8. <i>Gymnastics</i> ... | ... | ... | (" " " " 30). |
| 9. <i>Military Drill or Needlework</i> | (| " " " " | 30). |

During the second year's course students will be required to attend lectures at the Training College in the subjects in which they must pass in order to obtain a trained teacher's certificate, and in Music, Drawing, Gymnastics, Drill, or Needlework, and such other subjects of the course as the principal may direct. Students will also, from time to time, attend and teach classes at the practising schools.

At the end of their second year students will be examined in the subjects prescribed during the second year's course, and a trained teacher's certificate will be awarded to those who pass in the subjects numbered 1 to 5 and obtain a total of 350 marks. (In estimating this total, no credit will be given for less than 25 per cent. of marks in any subject.)

By the *Public Service Act*, No. 773, passed 1st November, 1883, schools were classified as under :—

First-class Schools.—Those with an average attendance exceeding 700 pupils.

Second-class Schools.—Those with an average attendance exceeding 400, but not exceeding 700 pupils.

Third-class Schools, Sub-division A.—Schools with an average attendance exceeding 250, but not exceeding 400 pupils.

Sub-division B.—Schools with an average attendance exceeding 150, but not exceeding 250 pupils.

Fourth-class Schools.—Those with an average attendance exceeding 50, but not exceeding 150 pupils.

Fifth-class Schools.—Those with an average attendance not exceeding 50 pupils.

In addition to the foregoing there are about 200 unclassified schools, each with an average attendance of less than 20 scholars.

By the *Public Service Act*, No. 773, and by Act 1,001, partly amending it, teachers are classified and paid as under :—

FIRST-CLASS TEACHERS.

That is, male teachers who are certificated and are classified in first honours, or hold a degree of the University of Melbourne, and also are in charge of first-class schools. Minimum fixed salary, £280 per annum, rising by five annual increments of £10 to a maximum of £330.

SECOND-CLASS TEACHERS.

That is, male teachers who are certificated and are classified in second honours, and also are in charge of second-class schools, also certificated female teachers who are first assistants in first-class schools, and are classified in first or second honours, or hold a degree of the University of Melbourne. Minimum fixed salary for males, £220 per annum, rising by five annual increments of £10 to a maximum of £270. Minimum fixed salary for females, £176 per annum, rising by five annual increments of £8 to a maximum of £216.

THIRD-CLASS TEACHERS.

That is, teachers who are certificated, and have also passed the matriculation examination; or are certificated and hold two of the Department's science certificates; or have obtained the trained teacher's certificate subsequently to 31st December, 1875; or obtained a trained teacher's certificate of first or second class under the Board of Education; or possess a certificate of competency alone in the case of teachers employed at the passing of this Act. And in addition to possessing any such qualification, also hold one of the following positions, that is to say :—As head teachers of third-class schools, or as first male assistants in first-class schools; or as first female assistants in first-class schools, not being qualified as second-class teachers; or as first female assistants in second-class schools. Minimum fixed salary for males, £176 per annum, rising by four annual increments of £8 to a maximum of £208. Minimum fixed salary for females, £121 12s., rising by seven annual increments of £6 8s. to a maximum of £166 8s.

FOURTH-CLASS TEACHERS.

That is, teachers who are certificated, and also are in charge of fourth-class schools, or hold positions as first male assistants in second-class schools, or as first female assistants of third-class schools. Minimum fixed salary for males, £144 per annum, rising by three annual increments of £8 to a maximum of £168. Minimum fixed salary for females, £89 12s., rising by four annual increments of £6 8s. to a maximum of £115 4s.

FIFTH-CLASS TEACHERS.

That is, teachers who are licensed to teach, and also are in charge of fifth-class schools, or hold other assistantships than those specified above, or act as relieving teachers. Fixed salary for teachers employed otherwise than as junior assistants :—

Males.—Minimum, £88, rising by six annual increments of £8 to a maximum of £136.

Females.—Minimum, £64, rising by three annual increments of £6 8s. to a maximum of £83 4s.

Fixed salary for teachers employed as junior assistants :—

Males.—£80 per annum, without increment.

Females.—£64 per annum, without increment.

UNCLASSIFIED TEACHERS.

That is, teachers in charge of unclassified schools. Fixed salary for males, £75 per annum ; for females, £60 per annum. No increments.

In addition to the fixed salaries above specified for the several classes of teachers a sum equal to one-half the amount of the fixed salary is obtainable by way of results. The sum actually obtained in this manner depends on the efficiency of the school, as gauged by the Inspector's examination. It forms, on an average, an increase of about 40 per cent. to the fixed salary. Teachers' incomes may be further augmented (1) by bonuses for the promotion of pupil-teachers; (2) by allowances for teaching drill, gymnastics, drawing, and singing; (3) by fees for teaching extra subjects; and (4), in the case of the associates of the Training Institution, by an allowance of £50 a-year, with a bonus of £10 for every candidate qualified by them for admission to the second year's course of training.

All head teachers receive allowances, proportioned to the average attendance, for maintenance (cleaning, fuel, etc.), and for incidental expenses.

Sewing Mistresses. In schools having an average attendance between 30 and 50 the teacher has the assistance, during the whole of the afternoon, of a sewing-mistress, whose salary is £30 a-year.

Salaries of pupil teachers. Pupil teachers are arranged in four classes, the salary attached to each of which is as follows :—

					Males.		Females.
Class	I.	...	...	...	£50	...	£40
	„ II.	...	...	...	40	...	32
	„ III.	...	...	...	30	...	24
	„ IV.	...	...	...	20	...	16

Retiring allowances. Teachers who were employed before 24th December, 1881, and who have been not less than fifteen years in the service, and have reached the age of sixty years, or who, before reaching that age, become, through infirmity of body or mind, permanently incapacitated for the discharge of their duties, are granted superannuation allowances on the same scale as those granted to members of the ordinary Civil Service. This allowance is a pension of an amount equivalent to as many sixtieths of the average annual salary received by the officer during the three years preceding his retirement as he has been years in the service. To teachers who have served less than fifteen years, and who are constrained by infirmity of body or mind to leave the service, gratuities not exceeding an amount equal to nine months' pay may be granted.

5. SCHOLARS.

School age. Compulsory attendance. Attendance at school of all children between the ages of six and thirteen* for at least forty* days in each quarter of the year is compulsory, the only excuses admissible for non-compliance with this requirement being—

- (I.) That a child is under efficient instruction in some other manner :
- (II.) That the child has been prevented from attending school by sickness, fear of infection, temporary or permanent infirmity, or any unavoidable cause :

* Prior to the passing of the *Education Act* 1889 (No. 1023), on the 4th November, 1889, the compulsory school age was 6 to 15 years; and the number of days' attendance required in each quarter was 30.

(III.) That there is no State School which the child can attend within a distance of two miles, measured according to the nearest road from the residence of such child; excepting when the child is more than nine years of age, then the distance shall be within two miles and a-half from the residence of such child, measured as aforesaid; and when the child is more than twelve years of age then the distance shall be within three miles from the residence of such child, measured as aforesaid:

(IV.) That the child has been educated up to the standard of education.

The standard of education is determined by an examination in which the candidate is required—(1) to read fluently from any ordinary book or newspaper a passage not containing any unusual scientific or technical words; (2) to write neatly in small-hand from dictation, with correct spelling, a short passage containing no words of exceptional difficulty; and (3) to state and work sums in arithmetic up to the four compound rules and reduction inclusive.

Standard of education.

Any parent who, without reasonable excuse, neglects to cause his child to attend school for the required period in each quarter is liable, on conviction before a justice, to a fine not exceeding 5s. for a first offence, and not less than 5s. nor more than 20s. for any succeeding offence, or, in default, may be imprisoned for a term not exceeding seven days.

Penalties for non-attendance.

In the year 1888, 7,722 prosecutions were instituted, 6,846 convictions obtained, and fines to the amount of £1,831 9s. 6d. imposed. To facilitate prosecutions under the compulsory clause the term parent—which in the principal Act is defined as including guardian, and any person who is liable to maintain or has the actual custody of a child—is held in the amending Act to include, in addition, any person with whom a child resides, or who is the occupier of a house in which a child resides. Moreover the burden lies on the defendant of proving the grounds of excuse from attendance at school, and where a child is apparently of the age alleged it rests with the defendant to prove that the child is not of such age.

Prosecutions.

No fees are chargeable for instruction in the ordinary English subjects, viz., reading (including learning of poetry and history), writing, arithmetic, grammar, geography, and general lessons, with needlework for girls. Instruction in singing, drawing, military drill and gymnastics is also free where these subjects are taught.

Fees.

6. COURSE OF INSTRUCTION.

Secular instruction only may be given by State school teachers; and in every State school (except of course, training schools, night schools, and half-time schools) four hours at least are set apart on each school day for secular instruction alone, two hours before noon and two hours after noon, in each case consecutive. The use, however, of State school buildings for the purpose of giving religious instruction (but not by the teachers) or for other purposes is permitted on days and at hours other than those set apart for secular instruction.

Instruction secular during school hours.

The programme of instruction as at present laid down in the regulations is as follows:—

Ordinary subjects.

Class I.

Reading and Spelling.—Reading tablets, the First Royal Reader, or approved equivalent.

Poetry.—To be learning the poems in the First and the Second Royal Reader, or equivalent.

Writing.—To be learning to form on slates small letters, short words, and capitals, from copies on the blackboard and from dictation.

Arithmetic.—To be learning to count up to 100; to read and write numbers up to 20; oral addition and subtraction of numbers each less than 11.

General Lessons.—Object lessons, and lessons on common facts.

Needlework.—Girls who are able to learn, to commence.

Singing.—Infant-school songs.

Drawing.—Suitable elementary exercises.

Marching and Disciplinary Exercises.

Class II.

Reading, Spelling, and Explanation.—The Second Royal Reader, or approved equivalent.

Poetry.—To learn poetry from the Reading Book.

Writing.—Single and double turns in copy-books; copying on slates, in manuscript, sentences from tablets or the Reading Book; and writing on slates from copies set on the blackboard.

Arithmetic.—Numeration and notation of numbers less than 10,000; simple addition and subtraction, and the multiplication table.

Geography.—Explanation of a map and of simple geographical terms; geography of the locality; the continents, oceans, and larger seas, with their relative positions.

General Lessons.—Object lessons, and the “Useful Knowledge Lessons” in the Second Royal Reader.

Needlework.—Girls to be learning to hem.

Singing.—Easy school songs.

Drawing.—Suitable elementary exercises.

Drill.—Class Drill, including the Extension Exercises.

Class III.

Reading, Spelling, and Explanation.—The Third Royal Reader, or approved equivalent.

Poetry.—To learn poetry from the Reading Book.

Dictation.—From the Reading Book.

Writing.—In copy-books, half or full text hand, with capitals.

Arithmetic.—Numeration and notation; the four simple rules and the money tables; compound addition and subtraction of money.

Grammar.—To distinguish nouns, verbs, adjectives, adverbs, and personal pronouns, and to form simple sentences containing them.

Geography.—Definitions; the principal physical features and the chief towns of Victoria; the principal inlets, straits, islands, peninsulas, and capes of Australasia; the relative positions of the Australasian colonies, and their capitals.

General Lessons.—Object lessons, with the “Useful Knowledge Lessons,” and “The World we Live in” in the Third Royal Reader, or equivalent.

Needlework for Girls.—Hemming and seaming, and knitting with two needles.

WHERE PRACTICABLE. { *Singing*—THEORY.—The names and shapes of the notes from the semibreve to the quaver, and their corresponding rests; the staff, the treble clef, and the letter-names of the lines and spaces, including the first ledger line below; the order of the tones and semitones in the Major Diatonic scale; the scale of C.

Singing—PRACTICE.—The Major Diatonic scale and common chord; melodies written in notes* of equal value, the intervals to consist of major and minor seconds only; easy songs in unison.

Drawing.—Right-lined geometric figures and applications.

Drill.—Class Drill, including the Extension Exercises, and, where practicable, Part I. of the Manual and Military Drill.

Gymnastics.—The free exercises, marching, running, and jumping, and, where practicable, climbing ropes and poles.

Class IV.

Reading, Spelling, and Explanation, and History.—The Fourth Royal Reader or approved equivalent.

Poetry.—To learn poetry from the Reading Book.

Dictation.—From the Reading Book.

Writing.—In copy-books, half or full text and small hands.

Arithmetic.—Numeration and notation; the simple and compound rules, reduction and bills of parcels.

Grammar.—The parts of speech; inflections of nouns, pronouns, adjectives, and adverbs; the principal parts of verbs; to form easy examples of the simple sentence, and give the general analysis of such sentences.

* The numbers or the sol-fa syllables may be affixed at the discretion of the teacher.

Geography.—The outlines of the descriptive geography of Australasia; the principal islands of the world, and the chief features of the coast-line of the several continents; the relative positions of the countries of the world and their capitals.

General Lessons.—Object lessons, and lessons on the chief forces of nature; the properties of solids, liquids, and gases; the simpler phenomena of heat (expansion of matter, liquefaction of solids, etc.); the atmosphere and its phenomena (winds, rain, etc.).

Needlework for Girls.—Hemming, seaming, knitting, stitching, and darning.

Singing—THEORY.—All notes, rests, and dotted notes from the semibreve to the semiquaver, and their values; the sharp, flat, and natural, and their use; the construction of the Diatonic scales requiring one sharp and one flat, and their signatures; the following time signatures, $\frac{2}{4}$, $\frac{3}{4}$, $\frac{4}{4}$, and C, and their accents.

Singing—PRACTICE.—Melodies written in minims and crotchets, or crotchets and quavers, introducing intervals of seconds and thirds and the common chord; also songs in unison* and simple rounds.

Drawing.—Curved-lined geometric figures; application of curved and straight lines; scrolls.

Drill.—Class Drill, including the Extension Exercises, and, where practicable, Parts I. and II. of the Manual of Military Drill.

Gymnastics—As prescribed for the Third Class, and, where practicable, vaulting, exercises on the rings, round swing, and horizontal ladder.

Class V.

Reading, Spelling and Explanation, and History.—The Fifth Royal Reader, or approved equivalent.

Poetry.—To learn poetry from the Reading Book.

Dictation and Composition.—Dictation from the Reading Book; composition—easy exercises, including letter writing.

Writing.—In copy-books, half or full text, small and running hands.

Arithmetic.—That prescribed for the Fourth Class; the meaning and notation of a vulgar fraction and a decimal; addition and subtraction of proper fractions with denominators not exceeding 10; addition and subtraction of decimals; practice and simple proportion.

Grammar.—General analysis of the complex sentence; inflexions of the parts of speech (the progressive and the emphatic forms of the verb and the potential mood not being required); full parsing of easy sentences.

Geography.—Descriptive geography of Europe and the British Possessions, with a special knowledge of the Australasian Colonies; explanation of the lines marking latitude and longitude and zones on a map of the world.

General Lessons.—Object lessons, and lessons on the causes of day and night, and of the seasons; the simpler kinds of physical and mechanical appliances, e.g., the thermometer, the barometer, lever, pulley, pump, and spirit-level.

Needlework for Girls.—To hem, seam, stitch, darn, work button-holes, gather, and to knit stockings.

Singing—THEORY.—All notes, dotted notes, and rests, from the semibreve to the demisemiquaver; a general knowledge of major keys up to three sharps and three flats, and the names of the key notes up to five sharps and five flats; the construction of the chromatic scale; the time signatures $\frac{2}{2}$, $\frac{3}{2}$, $\frac{6}{4}$, $\frac{3}{4}$, $\frac{6}{8}$, $\frac{9}{8}$, and their accents; the ordinary signs, terms, and marks of expression and speed; modulation into the keys of the dominant and sub-dominant.

Singing—PRACTICE.—Melodies of moderate difficulty, introducing examples of the above modulations, and songs written in two-part harmony.

Drawing.—As for the Fourth Class, with more advanced scrolls; architectural details; ornamental drawing.

Drill.—As for the Fourth Class.

Gymnastics.—The exercises prescribed for the lower classes; and, where practicable, rod exercises, on the horizontal bar and slanting ladder.

NOTE.—In the Fifth Class, exercises in Arithmetic should include the calculation of rectangular areas.

* Boys of advanced age in this class should be taught to sing a second part.

Class VI.

Reading, Spelling and Explanation, and History.—The Sixth Royal Reader, or approved equivalent, and newspapers.
Poetry or Prose.—To learn passages from the Sixth Royal Reader, or equivalent.
Dictation and Composition.—Dictation from the Reading Book or a newspaper; composition—more advanced exercises.
Writing.—In copy-books, running hand.
Arithmetic.—To vulgar and decimal fractions, compound proportion, and interest, inclusive.
Grammar.—Full parsing; analysis; the structure of words; the rules of syntax and their application.
Geography.—That prescribed for the Fifth Class, and the descriptive geography of Asia, Africa, and America.
General Lessons.—Object lessons, and lessons on the general characteristics of animal and vegetable life; the principal divisions of the animal and vegetable kingdoms; the chief organs of the body.
Needlework for Girls.—To put work together, cut out, and do all kinds of plain needlework.

WHERE
PRACTICABLE.

{
Singing.—As for the Fifth Class.
Drawing.—That prescribed for the Fifth Class; figure and flower drawing, constructive geometry and perspective.
Drill.—As for the Fifth Class.
Gymnastics.—As for the Fifth Class.

NOTE.—In the Sixth Class, exercises in Arithmetic should include the calculation of the areas of right-angled triangles and of circles, and the contents of rectangular and of cylindrical solids.

GENERAL NOTES.

Arithmetic.—Children above the First Class should be taught to work dictated exercises in arithmetic, and examples in the practical applications of the rules prescribed for their several classes. Suitable mental exercises in the various rules should be given in each class.

Exercises under the head of “Proportion” may be worked by the unitary method. The tables to be learnt should be those contained in the Arithmetical Table Book placed on the Department’s list of books and requisites.

Singing.—Suitable school songs should be taught in all classes.
Special Lessons.—Lessons on Morals and Manners suitable for the several classes should be given at least fortnightly. Collective lessons on the rules to be observed for the Preservation of Health, on the Treatment of the Apparently Drowned and of those Bitten by Snakes, should be given periodically.

Extra
subjects.

For instruction in extra subjects fees may be charged to the parents in accordance with the following scale, and for any approved subject not included in the list the fee to be charged will be at the discretion of the teacher, but must not, in any case, exceed one shilling per week. The teachers are entitled to these fees, subject to the deduction of a small percentage in cases where the inspector is unable to report that the instruction in the extra branches is satisfactory :—

Fees for Extra Subjects.

Latin	...	...	...	One shilling per week
French	...	...	...	”
Euclid	...	...	...	Sixpence
Algebra	...	...	...	”
Trigonometry	...	...	...	”
Mensuration	...	...	...	Threepence
Book-keeping	...	...	...	”
Elements of natural science	...	...	...	”

7. SECONDARY SCHOOLS.

No provision has been made, and, up to the present, no steps have been taken, in Victoria, towards the opening of advanced public schools such as exist in some of the neighbouring colonies. Secondary education is, therefore, entirely under the control either of private persons or proprietary bodies, usually connected with some religious denomination. No State assistance has been given to such bodies of late years, but formerly a few of the principal ones received money and grants of land from the Government for the erection of school buildings.*

8. SCHOLARSHIPS AND EXHIBITIONS.

A system of State-school scholarships was instituted in 1886 and continues to fulfil the end for which it was designed, that of providing the clever and industrious pupils of the State schools with the means of obtaining the higher education given in the best grammar schools of the country. The main provisions of this scheme are the following :—Two hundred pupils are annually selected by competitive examination from such of the pupils of State schools as are under the maximum statutory school age and have been a certain time enrolled in the sixth class. The successful competitors are provided with £10 a year for three years to pay for their education at an approved grammar school. In certain cases the expenses they incur in travelling from their homes to school are paid by the Department. Where the scholar cannot attend a grammar school without residing away from his home, his allowance of £10 a year for three years may be commuted for an allowance of £40 for one year. The scholars whose allowances have been thus commuted to attend a competitive examination held at the end of their year, and the thirty of them who gain most marks are granted a continuance of the £40 allowance for a second year. At the end of the second year, the best 15 of these are selected in a similar manner and receive a continuance of the allowance for a third year.

The initial examination for scholarships is solely upon the subjects taught in the State schools; the subsequent examinations for the scholars whose allowances have been commuted are partly upon some of these subjects, but chiefly upon the new subjects which they have been learning at the grammar schools.

The following table shows the number of candidates who have presented themselves at the initial examination for scholarships in the several years since they were instituted :—

Year.					Candidates.
1886	...	...	...	...	313
1887	...	...	...	...	527
1888	...	...	...	...	694

This scheme provides only a grammar school education to the choice pupils of the State schools. As a supplement to it twelve exhibitions are to be annually awarded upon competitive examination to holders of State school scholarships of three years' standing who have passed the matriculation examination of the University of Melbourne. These prizes are to be of the annual value of £40, tenable for four years, and are designed to enable the winners of them to superadd a University training to the education given at the grammar schools. Exhibitions.

9. RESULTS FOR 1888.

At the close of 1888, the number of schools in existence was 1,916 Day-schools and 17 Night-schools, with a total number of 197,115 pupils, and showing an average attendance of 128,958. The number of private schools for the same year was returned as 741 schools with 39,360 pupils.

For further details see paragraphs 808 *et seq.*

* See paragraph 864 in the body of the work.

EDUCATION SYSTEM OF NEW SOUTH WALES.*

(By E. JOHNSON, Esq., Under Secretary for Public Instruction in that Colony).

1. ESTABLISHMENT OF SYSTEM.

The present Act (43 Victoria, No. 23) relating to public instruction in New South Wales, intituled *An Act to make more adequate provision for Public Education*, and commonly known as the *Public Instruction Act of 1880*, came into force on the 1st May, 1880.

2. GENERAL FEATURES.

The Education System of New South Wales is strictly non-sectarian, but general religious instruction, as distinguished from dogmatical theology, is given by the teacher during school hours, whilst clergymen of the various denominations are also permitted to give special religious instruction to children of their own persuasion. All children between the ages of 6 and 14 are required to attend school, and fees are charged for their instruction, except in cases where inability to pay them is satisfactorily shown.

3. MANAGEMENT.

The Act provided for the dissolution of the Council of Education, established under the *Public Schools Act* of 1866, and the transfer of all powers and authorities hitherto exercised by that body to the Minister of Public Instruction, who has now the control of all moneys appropriated by Parliament for educational purposes.

The Minister reserves to himself the power of controlling, through his officers, the internal management of schools; but, for other purposes he will avail himself of the assistance of Public School Boards, whenever suitable persons are found to fill the office. Such boards consist of not more than seven persons, and may have charge of districts containing two or more public schools. Every public school board is the medium of communication with the Minister on behalf of the school, and its duties are—to regularly visit, inspect, and report upon the schools placed under their supervision; to suspend any teachers for misconduct in cases not admitting of delay, and to report immediately the causes of such suspension to the Minister; to use every endeavour to induce parents to send their children regularly to school, and to report the names of parents or guardians who refuse, or fail, to educate their children; to make provision, as far as may be, for keeping the school buildings in repair; to take care that they are not used for any improper purposes; to see that a sufficient quantity of suitable furniture and apparatus is provided; to take precautions for excluding from the school, during the ordinary business, all books not sanctioned by the Minister; to inspect periodically the school registers and records, and countersign the returns made to the Minister; to see that the school is open on all the usual school days, and that the teacher is present at his work; to observe whether the teacher discharges his duties; to report his conduct to the Minister when he is in fault, and to protect him from vexatious complaints; to sign the teacher's monthly abstract of salary, if they are of opinion that his duties have been duly performed; to deal with applications for the gratuitous instruction of children; and to see that no child is admitted free of charge unless the inability of the parents to pay school fees be satisfactorily proved.

The several classes of schools which may be established and maintained as fully organized schools are thus described in the Act:—

- (I.) Public Schools, in which the main object shall be to afford the best primary education to all children, without sectarian or class distinction.
- † (II.) Superior Public Schools, in towns and populous districts, in which additional lessons in the higher branches of education may be given, under such regulations for the purpose as may be approved by the Governor.
- (III.) Evening Public Schools, in which the object shall be to instruct persons who may not have received the advantages of primary education.

* See footnote (*) on page 482 *ante*.

† Any Public School may be declared a superior Public School if, after due enquiry, it shall be found that the attendance thereat is sufficient to enable a class to be formed of not less than 20 pupils who have been educated up to the standard that completes the course prescribed for a fourth class.

(IV.) High Schools for boys, in which the course of instruction shall be of such a character as to complete the Public School curriculum, or to prepare students for the University.

(V.) High Schools for girls.

In remote and thinly peopled districts, where no public school exists, the Minister may establish schools which shall not be classed as fully organized, but as provisional only, under regulations to be approved by the Governor. They are, however, converted into public schools as soon as an average attendance of 20 is reached. Where an attendance of from 12 to 19 pupils can be obtained a full time provisional school is established; but smaller groups of children are taught in half-time and house-to-house schools by itinerant teachers.

4. TEACHERS.

As a general rule no person will be appointed as a teacher unless he has been examined and classified. Teachers employed under the Department of Public Instruction are Civil Servants of the Crown, and are entitled to all the advantages and subject to all the restrictions of that position.

The attainments of Teachers, Students of the Training Schools, and candidates for employment as teachers, will be tested by written and oral examinations, and their skill in teaching will be determined by their ability to manage a school or class; and according to such attainments and skill they will be classified in the following grades:—The first, or highest class, will have three grades, distinguished as A with honours, A (without honours), and B; the second class will have three grades, distinguished as A with honours, A (without honours), and B; and the third, or lowest class, will have three grades, distinguished as A, B, and C. A classification awarded after a first successful examination will be provisional only, and will be confirmed at the end of three years from the date of examination, if the Inspector's reports upon his school work be fully satisfactory. The subjects upon which teachers will be examined are divided into two classes—ordinary and alternative. The former class embraces those elementary branches with which every teacher must be acquainted, to which must be added the principles of school management, and, if possible, the rudiments of music and drawing. The subjects styled alternative are those in which an examination is optional with the teacher. They embrace Latin, Mathematics, Natural Science, French, and German. In order to obtain a first or second class certificate, teachers must pass an examination in one or more of the alternative subjects mentioned, in addition to the ordinary subjects. But no teacher will be admitted to examination with a view to admission into a higher class than that held by him unless the Inspector certify that he possesses the necessary skill and efficiency.

For the purpose of fixing the salaries of teachers, schools are divided, according to their average attendance, into ten classes. The qualifications required by teachers for, and the salaries attached to, each class are shown in the following table. In addition to their salaries, teachers are provided with residences varying in value, according to their classification, from £20 to £100 per annum for masters, and £26 for mistresses:—

Salaries of Head Teachers.

Class of School.	Average Attendance.	Teachers' Classification.	SALARIES.	
			Masters.	Mistresses.
I. ...	Over 600	1A, with Honours, or 1A...	£ 400	£ 300
II. ...	400 to 600	1B	336	252
III. ...	300 „ 400	2A, with Honours ...	252	204
IV. ...	200 „ 300	2A	240	192
V. ...	100 „ 200	2B	228	180
VI. ...	50 „ 100	2B	216	...
VII. ...	40 „ 50	3A	180	...
VIII. ...	30 „ 40	3B	156	...
IX. ...	20 „ 30	3C	132	...
X. ...	20 or less	3C	108	...

Provisional school teachers' salaries range from £60 to £90. The salaries of assistant teachers range from £150 to £250 for males, and from £114 to £168 for females. Male pupil teachers receive from £36 to £66, and females from £24 to £48.

Teachers can only be promoted from one class to another by examination; but in each class a teacher may, without examination, be advanced to a higher grade for good service, counting from the end of 1885. That is to say, if his school during the last five years he has held the classification has increased in efficiency, if the Inspector's reports throughout that period have been satisfactory, and the report of the fifth year indicates that the applicant's practical skill is equal to that required for the grade sought, and if his personal conduct has merited the Minister's approval. The teachers are, except in special cases, promoted to more important schools in accordance with the principle of classification and seniority.

5. SCHOLARS.

The Act provides that all children between the ages of 6 and 14 shall attend school for a period of not less than 70 days in each half-year, unless just cause of exemption can be shown. This compulsory clause, however, can be enforced only in public school districts which may have been proclaimed for that purpose by the Governor. In such proclaimed districts any parent or guardian who shall neglect to send his children to school without just cause of exemption, may be summoned before two or more justices, and on conviction of the first offence shall forfeit and pay a sum not exceeding five shillings, and for every succeeding offence a sum not exceeding twenty shillings, and in default may be imprisoned for a term not exceeding seven days.

In all public schools fees are charged not exceeding threepence per week for each child up to four children of one family, but for four or any larger number of the same family the total amount of fees must not exceed one shilling per week. Parents or guardians, however, may be relieved from the payment of fees in cases where their inability to pay them is satisfactorily shown. All fees received on account of pupils are paid into the consolidated revenue.

6. COURSE OF INSTRUCTION.

In every public school four hours during each school day shall be devoted to secular instruction exclusively, and a portion of each day, not more than one hour, to be fixed by mutual agreement between the public school board in consultation with the teacher of such school and the clergyman of the district, shall be set apart when the children of any one religious persuasion may be instructed, apart from the other pupils of the school, by the clergyman or other religious teacher of such persuasion. No pupil is required to receive any general or special religious instruction if the parents or guardians of such pupil object to such religious instruction being given. If two or more clergymen of different persuasions desire to give religious instruction at any school, the children of each such different persuasion shall be so instructed on different days. In every case the religious instruction given must be that authorized by the church to which the clergyman or other religious teacher may belong. In case of the non-attendance of any clergyman or religious teacher during any portion of the period agreed to be set apart for religious instruction, such period shall be devoted to the ordinary secular instruction in such school.

In all schools under this Act the teaching shall be strictly non-sectarian, but the words "secular instruction" are defined so as to include general religious teaching as distinguished from dogmatical or polemical theology; and lessons in the history of England and in the history of Australia shall form part of the course of secular instruction. The course of secular instruction, thus defined, prescribed for each class is as follows:—

1.—*Infants' Department.*

(Course, 2 years.)

Reading.—Primer, Reader I. and Reader II. to lesson 24—"Australian School Series," or (in last half-year) I.N.B. Series, Book II., to end of Section III.

Writing.—On slates, from copies and dictation, using capitals.

Arithmetic.—Notation to four places, and simple addition on slates; easy mental operations in addition and subtraction, and the multiplication tables to “7 times.”

Object Lessons.—Familiar objects, domestic animals, common vegetables, common materials.

Form.—Lines and angles, three and four-sided figures, curved line, and other plain figures.

Colour.—Primary, secondary, and tertiary colours; combination, shades, and tints.

Singing.—Simple melodies by ear.

Geography.—School premises and surrounding neighbourhood.

Scripture.—Narratives and moral lessons.

2.—First Class.

(Course, 1½ year.)

Reading.—Primer, Reader I., Reader II. to lesson 24—A.S. Series, or I.N.B. Series, as far as Book II., Section III., inclusive.

Writing.—On slates from copy.

Dictation.—From lessons read, using capitals.

Arithmetic.—
Singing.—
Scripture.— } As in Infants' Department.

Second Class.

(Course, 1½ year.)

Reading.—Readers II. and III.—A.S. Series, or I.N.B. Series, Book II. with Sequel I., and Book III.; repetition of poetry, 50 lines.

Writing.—On slates from copy; in copy books—round hand, half-text, and small hand, with capitals.

Dictation.—From lessons read.

Arithmetic.—Notation; simple rules; addition, subtraction, and multiplication of money by two figures. Mental arithmetic:—Tables, money, weights and measures, prices of dozens, easy reduction.

Grammar.—(In last half-year)—Noun, pronoun, adjective, and verb; parts of speech.

Geography.—(In last half-year)—School locality, cardinal points; continents, oceans, and chief divisions marked on map of the world.

Object Lessons.—(In last half-year)—Domestic animals, common objects, etc.

Singing.—Simple melodies by ear; scale exercises, intervals, two-part songs.

Scripture.—I.N.B. Old Testament, No. 1 to end of lesson 18; moral lessons.

Third Class.

(Course, 1½ year.)

Reading.—Reader IV., A.S. Series, or I.N.B. Series, Book IV.; repetition of poetry, 150 lines.

Writing.—In copy books, three hands.

Dictation.—From the reading lessons, with correct spelling and punctuation.

Arithmetic.—Compound rules and reduction; vulgar and easy decimal fractions; simple and compound proportion. Mental arithmetic:—Prices of dozens and scores, exercises in buying and selling transactions, and in proportion and fractions.

Grammar.—All the parts of speech; accidence, parsing, and analysis of simple sentences; the rules of syntax; composition—letter-writing, description of places and events.

Geography.—Outlines of the geography of Australasia and Polynesia; physical geography and towns of New South Wales, Europe, and Asia; tides, winds, currents, climates, mapping.

Object Lessons.—Common minerals, vegetables, and animals; the human frame, and laws of health; elementary physiology; important manufactures.

- History*.—Nelson's History of England for Junior Classes, to page 122; Sutherland's History of Australia, to end of Chapter III.
- Singing*.—Part-singing; notation, pitch, accent, length of sound; double, triple, and quadruple measures; time signatures; scale, etc.
- Drawing*.—"Royal Drawing Books," Nos. 7, 8, 9, and 10; miscellaneous freehand exercises.
- Scripture*.—I.N.B. Old Testament, No. 1 and No. 2, to lesson 27; New Testament, No. 1.

Fourth Class.

(Course, 1 year.)

- Reading*.—Reader V. to lesson 56, A.S. Series, or I.N.B. 4th Supplement, to page 155; repetition of poetry, 100 lines.
- Writing*.—On unruled paper; three hands; ornamental writing; commercial forms.
- Dictation*.—From any portion of books read, with punctuation.
- Arithmetic*.—Practice; simple and compound interest; discount; profit and loss; mensuration of surfaces; mental arithmetic.
- Grammar*.—Accidence; parsing and analysis generally; framing sentences; simple essays.
- Geography*.—Physical features and chief towns of North America. Outlines of the geography of Africa, South America, and West Indies. Ocean; atmosphere.
- Object Lessons*.—As in Third Class, with light, heat, and air in relation to health; Elementary Physical Science.
- History*.—Nelson's History of England for Junior Classes, to page 232; Sutherland's History of Australia, Chapters 4, 5, 6, 7, 8, 9, and 10.
- Singing*.—As in Third Class; sharps, flats, transition, staff notation, key, and time; signatures and intervals fully.
- Drawing*.—"Royal Drawing Books," Nos. 11 and 12; Collins' Advanced Books, Nos. 1 and 2; Wire Models—cube, cone, prism, pyramid.
- Scripture*.—I.N.B. Old Testament, No. 2, to end; New Testament, No. 2, to end.
- Euclid*.—Book I., to Proposition XXVI.

Fifth Class.

(Course, 1 year.)

- Reading*.—Reader V. to the end, A.S. Series; or I.N.B. 4th Supplement, to the end.
- Writing*.—As in Fourth Class.
- Dictation*.—On unruled paper—difficult passages.
- Arithmetic*.—Full course, from Hamblin Smith's Manual, or any equivalent.
- Mensuration*.—Todhunter's Mensuration for beginners.
- Grammar*.—
- Geography*.—
- History*.—
- } As prescribed for Junior and Senior Public Examinations
at the Sydney University.
- Natural Science*.—Balfour Stewart's Lessons in Elementary Physics; or Huxley's Elementary Physiology.
- Geometry*.—Euclid, Books I., II., III., and IV., with Exercises.
- Algebra*.—Todhunter's Algebra for Beginners, to Chapter XXII., inclusive.
- Latin*.—Smith's "Principia Latina," Part I., to Exercise 28, inclusive.
- French*.—(For Girls) Schneider's First Year's French Course; Caron's French Reader, to Exercise 152.
- Drawing*.—Geometrical Drawing—Royal, Vere Foster's, or Collins' Series; Collins' Advanced Books, Nos. 22 and 24; Wire Models—hexagon, pyramid, cylinder, flat circle and square; plaster models, or grouping of wire models.
- Music*.—As in Third and Fourth Classes; Major and Minor Modes; Inversions, etc.
- Scripture*.—As in Fourth Class.

NOTE.—Where there are not as many as ten pupils to form a Fourth Class or a Fifth Class, as required, the Fourth Class and Fifth Class courses are to be taken as additions to the courses of the Third and Fourth Classes respectively; and where pupils remain in the Fifth Class beyond a year, Trigonometry is to be taken in that class as an additional subject.

7. ADVANCED PUBLIC SCHOOLS.

As already mentioned, the Act provides for the establishment of High Schools for boys, in which instruction shall be given in ancient and modern languages, in history, in literature, in mathematics, and in physical science; also for High Schools for girls in which instruction shall be given in modern languages, history, music, the elements of mathematics and physical science; together with such other subjects, in either case, as the Minister may from time to time direct.

The fees to be charged and the discipline to be maintained in these schools, and all other matters necessary to be done for the efficient conduct of such schools, shall be determined by regulations approved by the Governor.

8. SCHOLARSHIPS.

Thirty-eight (38) Scholarships to secure free instruction for three years at the High Schools just referred to are available annually.

9. RESULTS FOR 1880, AND FOR 1888.

On the 30th April, 1880, the late Council of Education handed over to the newly constituted department of Public Instruction 1,265 schools, attended by 101,534 pupils. At the end of the same year, the schools had increased to 1,357, and the scholars to 114,811. The total expenditure during the eight months the Act was in force in 1880 was £274,639. If from this sum be deducted the pupils' fees, amounting to £27,552, paid into the consolidated revenue, the net cost to the State is shown to have been £247,087. Calculated upon the expenditure for this period of eight months, the annual cost of a child's education was, if based on the mean quarterly enrolment, £3 12s. 8½d., or, if based on the average daily attendance, £5 12s. 0½d.

In 1888, there were 2,463 schools or departments, the year's enrolment of distinct pupils was 186,692, the mean quarterly enrolment 160,919, and the average attendance 112,220. The total expenditure in 1888 was £597,102. If from this sum be deducted £69,554, the amount of school fees paid into the consolidated revenue, the year's net cost to the State will be shown to have been £527,548. Thus, in 1888 the annual cost of a child's education was, if based on the mean quarterly enrolment, £3 14s. 2½d.; or, if based on the average attendance, £5 6s. 5d.; while the net cost to the State, per child, of the mean quarterly enrolment was £3 5s. 6¾d.; and per child of the average attendance, £4 14s. 0½d.

Five High Schools and fifty-one Superior Public Schools were in existence at the close of 1888.

There are two Training Schools for teachers—one for males and the other for females. The following is an outline of a new scheme for their management, adopted in 1888 :—

Each training school will be limited to an attendance of 538 students. Admissions will be annual, and may consist of three classes of candidates, namely :—First-class, or scholarship candidates; second-class, or half-scholarship candidates; and third-class, or non-scholarship candidates. The first class will consist of fifteen pupil teachers, whose term of service has expired, and who, in passing the entrance examination, obtain the highest marks; the second class will consist of ten pupil teachers, whose term of service has expired, who obtain the highest marks next to those obtained by the first fifteen in passing the entrance examination, and who are prepared to pay half the cost of their maintenance while in training; and the third class will consist of pupil teachers whose term of service has expired, of untrained teachers who have had charge of schools, and of persons who are entering the teaching profession for the first time, who have passed the entrance examination successfully, and are prepared to pay the whole cost of their maintenance while in training. All training school students will be examined at the close of each year's work. At the end of the first year, those showing the necessary qualifications will be allowed to remain a second year in training; while those who, although passing successfully, show lower qualifications, will be awarded a third-class certificate of grade A, B, or C, and will as opportunity offers be appointed to positions in the service for which their awarded classifications render them eligible. At the end of the second year the three students passing most successfully will be allowed to remain in training a third year, while all others passing successfully will be awarded a second.

class certificate with honours, or of grade A or B, and will as opportunity offers be appointed to positions for which their awarded classifications render them eligible. In all cases, however, the classification awarded will be provisional only, and will be confirmed at the end of three years from the date of examination, if the Inspector's report on the teacher's school work be fully satisfactory. Towards providing a class of teachers thoroughly qualified to carry on secondary education in Superior Schools and High Schools, already jointly numbering nearly sixty, it is deemed very desirable that a few of the training school students among those showing marked ability should, before completing their course, become connected with the University. To effect this object, arrangements have been made under which three of the students most successful at the end of each course of two years will be permitted to remain in the training school for a third year's course, and the University Senate has agreed to so modify its by-laws that such students may attend the third year's lectures for undergraduates, and be admitted to the final examination for the B.A. degree.

EDUCATION SYSTEM OF QUEENSLAND.

(By J. G. ANDERSON, Esq., M.A., Under Secretary for Public Instruction in that colony.)

1. ESTABLISHMENT OF SYSTEM.

Date when established. Primary Education in the colony of Queensland is administered under *The State Education Act* of 1875, which came into operation in January, 1876.

2. GENERAL FEATURES.

General features.

The Act just mentioned made provision for the withdrawal of State aid from non-vested schools at the end of the year 1880, and the system of education now conducted by the State is strictly undenominational, or national. It is, moreover, secular and free, but up to the present practically not compulsory, in consequence of the compulsory clauses never having been put in force.

3. MANAGEMENT.

General management.

Primary education is controlled by a responsible Minister of the Crown named the Secretary for Public Instruction.

Local management.

Local school committees are appointed by the Minister to assist him in the management of schools.

Kinds of schools.

Primary schools are of two kinds—State schools, which are maintained wholly at the public expense, and provisional schools, which are maintained partly at the public expense.

State schools.

State schools are not established except where there are no means of education available in a school under the department; and before they are authorized it must be shown that there is a probability of a daily average attendance of thirty children of school age being maintained, and one-fifth of the cost of erecting and furnishing the proposed school buildings must be contributed by the residents. Four-fifths of the cost of State school buildings, including the teacher's residence, fencing, and play sheds, is provided by the Government. The sites and buildings of State schools are vested in "The Secretary for Public Instruction in Queensland," who makes provision for ordinary maintenance and repairs of buildings, and for the payment of salaries and allowances of teachers.

Cost, etc., how defrayed.

Provisional schools.

Provisional schools are authorized in localities where the attendance is too small to warrant the establishment of a State school, and the average attendance must not be less than twelve children of school age. The Act provides for part-time provisional schools, where one teacher may supply the wants of two or more localities, devoting a portion of his time to each. In these the average attendance at any one place must not be less than six children of school age. The local promoters of provisional schools must provide a suitable building and furniture at their own expense. The aid granted by the Minister consists of a capitation allowance based on the average daily attendance, and must not exceed the average cost per head in the nearest State school, other than a girls' or infants' school. In other respects provisional schools are conducted under the same conditions as State schools.

Cost, etc., how defrayed.

4. TEACHERS.

Teachers are classified in three classes, each containing three divisions. There are Salaries of therefore nine grades of classification, to each of which a distinct rate of salary is teachers. assigned as follows:—

				Males.		Females.
Class I.,	Division 1	...	...	£204	...	£180
"	"	2	...	192	...	168
"	"	3	...	180	...	156
Class II.,	"	1	...	168	...	138
"	"	2	...	156	...	126
"	"	3	...	144	...	114
Class III.,	"	1	...	126	...	96
"	"	2	...	114	...	84
"	"	3	...	102	...	72

The emoluments of male head teachers of State schools consist of the salary due to their classification, a capitation allowance for the scholars, a fee of £5 per annum for each pupil teacher who has been trained by them and passes the annual examination, and free quarters or an allowance for house rent. The capitation allowance is at the rate of £1 per annum for each pupil, according to the average aggregate attendance of children in a school. When the average attendance exceeds seventy, assistant teachers with defined staff rank share the capitation allowance with the head teacher. Emoluments of head teachers.

The pupil teachers' curriculum extends over four years, and the rates of payment are as follow:— Pupil teachers.

				Males.		Females.
1st Class	...	...	...	£40	...	£20
2nd "	...	...	...	45	...	25
3rd "	...	...	...	55	...	35
4th "	...	...	...	70	...	50

Promotion from one class to another is made upon examination only. Promotion from one division to another of the same class is made as a reward for general competence in teaching and the management of schools, testified to by favourable reports of inspectors. Promotion.

No provision is made for retiring allowances to teachers.

Retiring allowances.

5. SCHOLARS.

Children between the ages of six and twelve are expected, and may be compelled under the *Education Act*, to attend school, but they are also admitted when they have attained the age of five years (in infant schools the age of admission is four years); and children who have reached the age of fifteen years may be admitted or excluded, at the discretion of the head teacher of the school. School age.

Part III. of the *Education Act* provides for compulsory education, but, inasmuch as its provisions cannot be enforced except in districts proclaimed by the Governor in Council, and as no district has yet been proclaimed, the system of education is at the present time practically not compulsory. The compulsory clauses provide for the attendance at school—for sixty days at least in each half-year—of every child of not less than six nor more than twelve years of age, unless the child is otherwise under efficient instruction, or is prevented by sickness or other unavoidable cause, or is beyond the reach of a State school, or has been educated up to the standard of education. Compulsory attendance.

Any parent who shall neglect or refuse to cause any such child to attend school for the time specified, shall, on conviction, forfeit and pay any sum not exceeding 20s. for a first offence, and not exceeding £5 for a subsequent offence; and, in default of payment, shall be liable to be imprisoned for any period not exceeding seven days for a first offence, and not exceeding thirty days for a second or subsequent offence. Penalties for non-attendance.

No fees are charged for the instruction of pupils in either State or provisional schools. Fees.

The Minister supplies the necessary apparatus and text books for use in school. School requisites. The parents of children must provide them with duplicate text books and slates for

home use, and with copy books and exercise books; minor requisites, such as pens and pencils, must also be provided at the parents' expense.

6. COURSE OF INSTRUCTION.

- School hours** The time for secular instruction extends to four and three-quarter hours daily (in infants' schools to four hours daily), Saturday and Sunday excepted.
- Religious instruction.** On application, permission is granted to ministers of religion, or persons duly authorized by them, to impart religious instruction in the school buildings out of school hours, but religious instruction is not imparted during the hours set apart for secular instruction.
- Subjects taught.** The subjects of instruction are as follows:—Reading, writing, arithmetic, English grammar, geography, history, elementary mechanics (for boys), domestic economy (for girls), object lessons, drill and gymnastics, vocal music, and (for girls) needle-work.
- Extra subjects.** Teachers are allowed, with the sanction of the Minister first obtained, to give instruction in extra subjects, and to charge such fees as may be agreed upon; but such instruction must be given before or after the regular school hours, so as not to interfere with the course of instruction prescribed by the Act or the times appointed for giving religious instruction, or the forenoon and mid-day recesses.

7. ADVANCED SCHOOLS.

- Endowments to grammar schools.** There are no advanced schools in Queensland under the direction of the Education Department. The grammar schools, however, receive Government aid in the form of a free site and a liberal building grant, in the first instance, and of subsequent annual endowments.

8. SCHOLARSHIPS.

- Scholarships** (There are available annually by executive authority 120 scholarships open to pupils of the State schools, 30 being available for girls.) These prizes involve the payment by the department of the school fees of the successful competitors for three years of attendance at any grammar school endowed by the State in the colony, and of travelling expenses to and from the nearest grammar school once a year. The sum of £1,657 8s. 6d. was paid by the department on this account in 1888. At the end of 1888 there were 96 State scholars, of whom 16 were girls attending grammar schools.

9. RESULTS FOR 1888.

- Number of schools.** At the close of 1888 there were in operation 544 schools, of which 306 were State schools, 236 were provisional schools, and 2 were reformatory schools.
- Number of teachers.** At the end of the year 1888 the number of teachers employed was 1,480, namely, 670 classified teachers, 303 unclassified teachers, and 507 pupil teachers. Of the whole number, 691 were males and 789 were females. Nearly 84 per cent. (83·98) of the teachers were employed in State schools.
- Number of scholars.** The gross annual enrolment for the year 1888 was 67,918, and the net enrolment was 58,738. The average daily attendance was 38,926, being 57·3 per cent. of the gross enrolment, or 66·2 per cent. of the net annual enrolment.
- Expenditure** The gross expenditure on State and Provisional schools for the year 1888 amounted to £190,606 6s. 6d.,* being at the rate of £4 17s. 11d. per head of the children in average daily attendance.

THE EDUCATION SYSTEM OF SOUTH AUSTRALIA.

(By L. W. STANTON, Esq., Inspector of Schools in that colony.)

1. ESTABLISHMENT OF SYSTEM.

- Date when established.** The present system came into operation in January, 1876, under Act No. 11 of 1875, and was slightly modified by an amending Act in 1878.

* The expenditure, exclusive of buildings and rent, etc., was £151,831.

2. GENERAL FEATURES.

The school system is compulsory and secular ; but free only to those who show their inability to pay the prescribed fees, viz., 4d. per week for each child under 8 years of age, and 6d. a week for those over 8. Those who are in a position to pay part fees only can get a reduction made on proper application.

The main principles of the system are laid down in the *Education Acts* of 1875 and 1878; the details are provided for in Regulations, which are laid before both Houses of Parliament, and which have the force of law, unless disallowed within one month by express resolution of either House.

3. MANAGEMENT.

The management is in the hands of a department under the Minister controlling education. The permanent head is styled "Inspector-General of Schools." For the purpose of school supervision the province is divided into six districts, each under the charge of an inspector.

A large portion of the settled districts of the colony is divided into school districts. For each of these there is a Board of Advice, of not less than three persons, appointed by the Government. The members perform their duties without any fee, and are of much service in advising upon general matters connected with the schools. They are entrusted especially with the care of school buildings, and are provided with limited funds from the general revenue, to be expended in improvements and repairs. They also decide upon applications for free instruction, and recommend when prosecutions are to be instituted under the compulsory clause of the Act. For carrying out this clause, more particularly in large centres, there are six school visitors, whose time is chiefly occupied in looking up absentees. The prosecutions actually instituted are few in number.

3A. KINDS OF SCHOOLS.

The schools are of two kinds, public and provisional. A public school is one with an average attendance of not less than twenty, in charge of a certificated teacher. A provisional school is one in charge of an uncertificated teacher ; or one in charge of a certificated teacher, but with an average attendance below twenty. Children under 5 are not reckoned in computing averages, except in the case of infant departments of large schools with a triple organization. Some of the smaller provisional schools are open half-time, generally in alternate weeks, and one teacher undertakes two of them. In Adelaide, and some of the larger provincial towns, each public school is divided into separate departments for boys, girls, and infants under 7. In other schools the sexes are taught together. The fees and the course of instruction are alike in all schools. There is also an advanced school for girls in Adelaide—see section 7.

In 1888, twenty-nine of the public and provisional schools were open in the evening, chiefly during the winter months, for male pupils over 13 years of age. The fee charged is one shilling per week, and the schools are open at least three evenings for not less than two hours at a time. A small subsidy is paid, and the cost to the State for the year 1888 was under £80.

4. TEACHERS.

All appointments are made by the Minister, and all teachers are transferable from school to school at his discretion. For serious offences they are liable to summary dismissal. In other cases the engagement is terminable, on either side, at one month's notice, taking effect at the end of a school quarter. Teachers are not members of the Civil Service.

The remuneration of head teachers of schools with an average of 200 and upwards is (1) by fixed salary, and (2) by a bonus for successful teaching, as determined by the annual examination; the fees received are paid into the general revenue of the province. In public schools with an annual average below 200, the head teacher's remuneration consists of (1) a fixed salary, (2) bonus for successful teaching, (3) fees received from pupils, and (4) bonus for successful instruction of pupil teachers. In addition to these, an annual allowance for rent is made to all head teachers of public schools where no residence is provided by the department. In provisional schools the teachers receive (1) the fees paid by the pupils, (2) a grant of £4 per head on the average attendance up to 19 children, and (3) a bonus for

successful teaching, smaller, however, than that paid to the public school teachers. Assistant teachers in schools of over 200 average attendance receive (1) a fixed salary, according to grade; and (2) the same amount of bonus as the head teachers of their schools. In schools of under 200 average attendance an assistant teacher receives (1) a fixed salary, irrespective of grade; (2) one-tenth of the fees received from pupils; and (3) a bonus for successful teaching. Male pupil teachers receive £20 for the first year, and may rise by three equal annual increments to £50 for the fourth year; female pupil teachers, in like manner, begin at £18, and rise similarly to £36 for the fourth year. Teachers of sewing receive 10s. per annum, with a maximum of £15, for every girl who passes in needlework at the annual examination of the Inspector.

Assistant teachers. All retiring allowances were abolished at the end of 1884, and the sum due to each teacher was then placed to his credit. These amounts bear simple interest at the rate of four per cent., and will be payable when the teacher leaves the service; or he may transfer his interest therein to a fund, now in course of establishment under Government sanction, called the "Teachers' Superannuation Fund."

Pupil teachers.

Teachers of sewing.

Retiring allowance abolished.

Superannuation fund.

4A. TRAINING OF TEACHERS.

Training college. There is a Training College in Adelaide for those who wish to qualify themselves for the profession of teaching. The students are mainly those who have served their time as pupil-teachers. The period of training is at present one year. No fee is charged, and an allowance for maintenance is made to each student, who is bound in return to take service under the department for a limited term after the period of training has expired. Persons outside the service of the department may receive training on payment of a fee.

Period of training.

Maintenance allowance.

Training of persons outside the service.

5. SCHOLARS.

Compulsory attendance. Attendance at school is compulsory for 35 days in each school quarter for children between the ages of 7 and 13, who live within two miles of a Government school, and who have not passed the standard of efficiency called the "compulsory standard."

6. HOURS AND COURSE OF INSTRUCTION.

Hours. The schools open for secular instruction at 9.30. An interval of not less than one hour is prescribed for mid-day recess, and the minimum time to be devoted to actual teaching is four and a half hours on each school day. The Bible may be read by any teacher to his pupils, who attend for that purpose, for not more than half an hour before 9.30 a.m., but no religious instruction is permitted, nor is attendance during this time compulsory. The Minister has power to require such Bible reading in any school, on receiving a written request to that effect from the parents of not less than ten children.

Bible reading.

Secular instruction. The course of secular instruction includes reading, spelling, writing, arithmetic, geography, grammar, history, composition, poetry, elementary science, special lessons on general and moral subjects, drawing, drill, and sewing for girls. Singing is encouraged. There are no extras. Satisfying an Inspector of Schools in the first four subjects entitles to a "compulsory certificate," which exempts the holder from all further attendance at school.

Compulsory standard.

Course in advanced school. In the Advanced School for Girls the course of instruction comprises the usual branches of an English education, French and German, drawing, class singing, and elementary natural science, with Latin and mathematics for the more advanced pupils.

7. SECONDARY PUBLIC SCHOOLS.

Advanced school for girls. In Adelaide there is an "Advanced School for Girls," where the fees are 3 guineas per quarter. It is open to girls who have passed the compulsory standard in a public or provisional school, or an equivalent examination, and during the last quarter of 1888 the number of pupils was 127, and the fees for the year exceeded the expenditure by about £365.

8. EXHIBITIONS, BURSARIES, AND SCHOLARSHIPS.

Exhibitions. The following are annually offered for competition:—(1)—Six exhibitions, tenable for three years, and of the value of £20 a year (or £40 to those who have

to reside away from home), open to pupils under 14 years, boys and girls alike, who attend the public schools. The successful competitors are required to enter at some advanced school approved by the Minister. (2) Six bursaries tenable for three years, and giving the right of education at the advanced school, open to all girls in the public schools, who are under 14. (3) Three University scholarships of the value of £50, tenable for three years, and open to all candidates under 18, who have been one year in the province.

Bursaries.

Scholarships

9. REVENUE, COST, AND RESULTS.

The expenses of the Public School system are defrayed (1) by fees; (2) by rent from dedicated lands;* and (3) by grant from general revenue.

Provision for cost.

During 1888 there were received (1) fees, £24,100; (2) rents, £12,935; (3) miscellaneous, £1,370. The total cost was £103,330, and the balance required came from the general revenue.

Revenue and actual cost.

The net number of children instructed (making allowance for those who attended more than one school) was 45,236. The average daily attendance was 28,329.

Number of children instructed.

The number of schools open during last quarter of 1888 was 536, of which 286 were provisional.

Number of schools.

The number of teachers of all grades employed was 405 males and 529 females, a total of 934.

Number of teachers.

10. MISCELLANEOUS.

There has recently been a general move towards securing Technical Education for the youth of the province, and a School of Mines and Industries has been established in Adelaide. Already about 100 students are at work.

Technical school.

The department communicates with teachers on matters of general interest by the issue nine times in the year of an official paper styled "The Education Gazette."

Education Gazette.

The Regulations are revised periodically, and such alterations are made as appear to be in harmony with the best modern views on primary education.

Regulations revised periodically

SYSTEM OF EDUCATION IN WESTERN AUSTRALIA.

(By WALTER A. GALE, Esq., Secretary to the Central Board of Education in that colony.)

1. ESTABLISHMENT OF SYSTEM.

The Statute in force relating to Public Instruction in Western Australia is the *Elementary Education Act of 1871*.

Act in force.

2. GENERAL FEATURES.

The system is compulsory. The school fees are fixed upon a sliding scale, varying from one shilling to twopence per week, according to the means of the parents. Children whose parents are unable to pay the prescribed fees are admitted upon the "free list."

General features.

The teaching in the purely Government schools is strictly secular. The Bible, however, is read for half-an-hour before the school actually assembles, to children whose parents do not object to their attending, but "without comment."

The assisted schools are sectarian, and in them the tenets of the religious denominations to which they belong are taught.

3. MANAGEMENT.

The *Education Act* is administered by a Central Board of Education, assisted by various District Boards. These latter, of which there are twenty-one, have the management of local educational affairs, and act generally as Committees of Advice

Powers and composition of Central and District Boards of Education.

* The total area dedicated to educational purposes was 359,244 acres, of which 315,901 acres were leased at the end of 1888. The revenue therefrom in 1888 was, as stated in the next line, £12,935, or 9½d. per acre.

to the Central Board, which has entire control of all public funds, and exercises a general supervision over all schools in receipt of Government aid.

The Central Board consists of five members. The Colonial Secretary is *ex officio* the chairman of the board, the remaining members being appointed by the Governor in Council. Special provision is, however, made that the four unofficial members must be laymen, and that no two of them shall belong to the same religious denomination.

The District Boards are elected under a franchise similar to that under which members of the Legislative Council are returned. Members of these boards are elected for a term of three years, but in the event of seats becoming vacant through resignation or otherwise, the vacancies are filled by the Central Board.

4. TEACHERS.

Appoint- Teachers are appointed, in the majority of cases, by the various District Boards of Education, subject to the confirmation of the Central Board. All teachers ment, quali- appointed to Government schools are expected, before their appointments are fication, and confirmed, to have entitled themselves to certificates of competency. The salaries of remunera- teachers are computed upon a fixed scale based upon the average attendance in the tion of teachers. preceding year. This sum is supplemented by a "result grant," the exact amount of which is determined for the one year by the efficiency of the school at the examination in the year preceding.

8. SCHOLARSHIPS.

Exhibitions In addition to the expenditure above mentioned and the ordinary salaries of and scholar- officers of the Education Department, the Central Board annually offers two high ships. school scholarships of £50 each per annum, tenable for three years, for competition amongst boys under the age of fourteen years attending the elementary schools, and also a yearly University exhibition of the value of £100 per annum, tenable for three years, and open for competition to all boys who have resided in the colony for a term of two years at least, and who are not more than eighteen years old.

9. RESULTS FOR 1888.

Number of The number of Government schools in operation during the year was seventy- schools. seven, and the number of assisted schools sixteen. Of these latter all, with the exception of the Perth Protestant Orphanage, were connected with the Roman Catholic Church.

Numbers of The number of children upon the rolls of Government schools was 3,262 (1,761 scholars. boys, 1,501 girls), while the enrolment at the assisted schools was 1,417 (612 boys, 805 girls).

Comparison, The average attendance in the former was 2,533, or 78 per cent.; and in the attendance and enrol- latter 1,126, or 79 per cent. of the enrolment. (It will thus be seen, on reference to ment. a previous portion of this volume,* that this proportion is larger than that in any other of the Australasian colonies.)

Expenditure The amounts of the public funds expended upon the Government and assisted schools during 1888, were £8,169 5s. 10d. and £1,474 8s. respectively. Besides these sums, a further amount of £208 was paid to the various district compulsory officers during the year; making a total expenditure of £9,851 13s. 10d. upon "salaries of teachers, etc."

Fees and As against this expenditure, the amount received from schools during the year book sales. was £1,894 2s. 3d., representing fees, £1,469 1s. 2d., and book sales, £425 1s. 1d. This sum was, for the most part, expended upon new buildings, the upkeep and repairs of the schools already built, and the purchase of educational books and prizes.

Cost per The average cost (net) per head of children attending the Government schools head. was £1 7s. 3½d. Under the *Education Act* the Central Board is empowered to expend sums not exceeding £3 10s. and £1 15s. per head of children attending the Government and assisted schools respectively. The amounts actually expended have never reached the maximum grants.

* See table on page 397 *ante*.

EDUCATION SYSTEM OF TASMANIA—1889.

(Information furnished by T. STEPHENS, Esq., Director of Education in that colony.)

EDUCATION DEPARTMENT.

By the *Education Act*, 49 Vict. No. 15, all property formerly vested in the Board of Education is transferred to the Minister controlling the department, and his successors. Provision is made for the establishment and maintenance of State schools, including ordinary schools, provisional, half-time and night schools, and the Minister may also establish model schools, in which provision shall be made for the training of teachers. The system of instruction is, as heretofore, non-sectarian; but clergymen, or other religious teachers, are authorized to give religious instruction at the State schools to children of their own persuasion. Education is compulsory from 7 to 13 years of age, but exemption from attendance is allowed in the case of children of 11 years of age who have been educated up to the compulsory standard. Children of school age, not coming under the exemption clauses, are required to attend school at least three days in each week. The rate of school fees, their remission in certain cases, and their apportionment among the teachers, are determined by regulation, and provision is made for the issue of free passes on the Government railways to school-children. The Governor in Council may authorize the erection and repair of school-houses, and may make rules for regulating the terms on which schools may be used for other than school purposes, for defining the system of instruction, including the determination of the compulsory standard, for the inspection of schools, the examination and classification of teachers, and their salaries, and generally for carrying the Act into effect.

Management.

System of instruction.

Compulsory attendance at school age.

Fees.

Regulations.

School Districts are proclaimed, each under the jurisdiction of a Board of Advice consisting of not more than seven members. The Board of Advice exercises general supervision over the schools in its district, and reports half-yearly to the Minister on their state of repair. The Board is empowered to spend upon the care or improvement of schools such a sum as may be allotted for the purpose by the Minister, to appoint special visitors, to suspend teachers or close schools in cases of emergency, and to extend the compulsory distance beyond the radius of two miles. It has also power to enforce the compulsory clauses.

Boards of advice.

Number of State schools in operation during 1888, 220; number of distinct children on the rolls during the year, 17,125; average number on rolls, 12,002; average daily attendance, 8,730. Total expenditure, £32,648 7s. 3d.; average cost per head of scholars in daily attendance, £3 14s. 9½d.; average receipts from school fees per head, ditto, £1 0s. 7d. Average number of free scholars under instruction, 785; amount paid by the department for their instruction, £343 10s. 6d.

Results for 1888.

Twelve exhibitions are annually awarded of the value of £16 13s. 4d. each—six to boys and six to girls—tenable for four years from 1st July. Candidates must be between ten and twelve years of age, and must have attended one of the State schools for at least twelve months prior to 1st June.

Exhibitions.

RETURNS FROM PRIVATE SCHOOLS.

The head teacher of every school, not being a State or Sunday school, is required, under a penalty of five pounds, to furnish to the Minister, in the month of January in each year, a nominal return giving the sex, age, residence, and school attendance of every child attending the school during the preceding year.

NOTE.—In furnishing the above brief outline, Mr. Stephens states:—"Since the passing of the *Education Act* 1885, the whole system of primary education has been undergoing revision, and while the work of reconstruction has proceeded so far that all printed documents of earlier date than 1886 are more or less inapplicable to existing conditions, it is not yet so complete as to enable the department to publish full particulars" of the scheme.

EDUCATION SYSTEM OF NEW ZEALAND.

(Originally compiled in the office of the Government Statist, Melbourne, from information and official documents supplied by the Secretary for Education in New Zealand, who has also corrected and revised the account up to date.)

1. ESTABLISHMENT OF SYSTEM.

Date when established. Until the year 1878 each of the nine provincial districts into which New Zealand was divided had its own educational system, over which the Colonial Government exercised no control, and to the expense of which none of the colonial revenue was applicable. The abolition of the Provincial Governments at the close of 1876 necessitated the passing of the colonial *Education Act* of 1887, which came into operation on the first of January, 1878.

2. GENERAL FEATURES.

General features. Primary education in New Zealand is now under the general control of the Minister of Education, but the administration of the Act is almost entirely vested in thirteen education boards, elected by the school committees within the education districts. The system is free, compulsory for children between the ages of 7 and 13, and secular, Bible instruction of any kind not being permitted during school hours. Secondary instruction is given at high schools, each of which is under its own governing body, in most cases constituted by Act of Parliament; and in some places where no high school has been established, the primary school has an upper department, and is called a district high school. Fees are charged for all secondary instruction.

3. MANAGEMENT.

Education Department. There is a colonial Educational Department placed in charge of one of the Members of the Cabinet as Minister of Education. The duties of the Education Department consist mainly in distributing the money voted by Parliament for educational purposes, in examining and certificating teachers, in collecting statistics, and in exercising general control over all matters relating to education within the colony.

Inspector-General of Schools and Secretary for Education. The inspection of the schools and the appointment and control of the inspectors are committed to the boards. An Inspector-General is appointed by the Minister, but he has no authoritative control over the board's inspectors, and his duties consist mainly in supervising the examination and classification of teachers; in advising the Minister as to the issuing of certificates of competency, without which no teacher can be employed by the board; and in exercising a general control over the more technical work of the department. He also inspects some of the secondary schools, at which holders of boards' scholarships receive their education. The ordinary business of the department is conducted by a Secretary for Education. The two offices are at present held by the same gentleman.

Thirteen education boards. As a concession to the strong provincial feeling which prevailed, the colony is divided into thirteen different educational districts, in the defining of which the old provincial divisions were adhered to with only slight modifications. The control of the public primary schools in each of these districts is committed to an Education Board, elected by the school committees within the district. The administration of the *Education Act* within their several districts is almost wholly vested in the boards, whose duty it is to constitute school districts, provide school buildings, establish and maintain schools, appoint and dismiss teachers, and generally to exercise other powers which in Victoria and some other colonies are possessed by the Minister of Education.

Local school committees. For every school district a school committee is annually elected by the householders, the duties of the school committees being somewhat analogous to those of the boards of advice in some of the other colonies.

Kinds of schools. Public schools are of three kinds, viz., ordinary State schools, and aided schools—for primary instruction alone; and district high schools—at which the higher branches of education are also taught. Aided schools are those started by private enterprise in outlying districts, which have, on the recommendation of the Inspector,

been assisted in books, school apparatus, or money, and are conducted on the same principles as public schools. The *district high* schools are quite distinct from the *high* schools hereinafter mentioned; the former are under the education boards and school committees, and are primary schools, with an upper division affording to advanced scholars in the smaller centres of population the means of procuring secondary education without going from home to a place where there is a high school.

Almost the entire cost of the public primary schools, including management by boards, inspection of schools, scholarships, training colleges, etc., is defrayed by an annual vote of the Colonial Parliament. A sum of about £29,000 a year is derived from the primary education reserves, and this amount goes in reduction of the Education vote.* The payments to boards consist mainly of a capitation grant at the rate of £3 15s. a year for every unit of average daily attendance at the schools within the respective education districts, and a further grant of 1s. 6d. per average attendance for scholarships from the primary to the secondary schools. A sum of £4,000 is annually divided among the boards, to aid them in providing sufficiently for school inspection. During the last eleven years, a sum of about £820,000 has been voted by Parliament to the boards for the erection, enlargement, and improvement of school buildings.

4. TEACHERS.

Teachers are appointed and dismissed by the education boards, but no teacher can be employed without a certificate of competency from the Minister of Education.

As each of the thirteen boards fixes its own scale of payments, it is impossible to state in general terms what are the emoluments of teachers, or on what the payments depend. Naturally the teaching staff granted to schools is in proportion to the average attendance, and the salary is fixed according to the size of the school and the position on the staff, and with more or less regard to the rank in the classification by the Minister. At the end of 1888 the amount of the salaries of 2,994 teachers, pupil teachers and sewing mistresses was £277,452, the average salary being therefore £92 13s. 4d. Seven of these teachers received salaries of £400 or more, the highest salary being £475 18s.; 46 received less than £400 but not less than £300; 219 less than £300 but not less than £200; 975 less than £200 but not less than £100; and of the 1,747 whose salaries were below £100, there were 913 holding the position of pupil teacher, and 155 sewing mistresses.

There are no retiring allowances paid to superannuated teachers.

5. SCHOLARS.

The compulsory attendance provisions of the Act apply to children between 7 and 13 years of age, but the school age for other purposes is between the years of 5 and 15. Except in the case of a district high school, no child over school age can attend a public school without the special leave of the committee.

School committees have the power of enforcing the attendance at school for at least half of the school period of every child not less than 7 nor more than 13 years of age, residing within two miles from a public school. But a certificate of exemption can be obtained upon satisfying a committee of the existence of any of the following grounds:—(1) That the child is under efficient and regular instruction otherwise; (2) that the child is prevented from attending by sickness or other unavoidable cause; (3) that the road between the child's residence and the school is impassable; or (4) that an inspector of schools or master of a public school has granted a certificate that the child has passed the fourth standard of education.

Parents of children that are not exempted, and that fail to attend a school, may be summoned by the clerk or any member of the school committee before any two justices of the peace, who may order the parent to send the child to school. Failing to obey the order, the parent is liable to a penalty not exceeding forty shillings, and the same proceedings may be repeated week by week, should the parent fail to comply with the order. The enforcement of the compulsory attendance provisions of the Act is wholly left to the discretion of the different committees. In some of the

* For particulars relating to the Education Reserves of New Zealand, see *Victorian Year-Book*, 1880-81, page 445.

larger towns where the committees have brought the law into force, the Government have instructed the officers of police to assist the school authorities by reporting cases of non-attendance, and co-operating with the committees' clerks in bringing the cases before the court.

Fees. No fees are chargeable for attendance at the ordinary public schools, which are open to Maori and half-caste equally with European children, but in the district high schools, where the higher branches of education are taught, fees may be charged. Nine such schools have been established, at which the fees vary from 10s. per quarter to £10 a year.

6. COURSE OF INSTRUCTION.

School hours. The Act provides (1) that every public school shall be open for at least four hours a day on five days in the week; (2) that the teaching shall be entirely of a secular character; (3) that the subjects of instruction shall be reading, writing, arithmetic, English grammar and composition, geography, history, elementary science, drawing, object lessons, vocal music, and (in the case of girls) sewing and needlework, and the principles of domestic economy. No child whose parents object need be present at the teaching of history.

Extra subjects. In the smaller centres of population where a district secondary school cannot be maintained, the education board may convert a public school into a "district high school," where, in addition to the branches of education prescribed for the primary schools, the ancient and modern languages, mathematics, science, etc., may be taught.

Authorized books. The class books used in the schools must be only such as are approved by the Governor in Council. The Bible, biblical history, and other biblical manuals are excluded from the authorized list.

Opportunities for religious instruction. School committees are empowered to grant the use of the school buildings for other purposes on days and at hours other than those fixed by the Act for ordinary school work. An opportunity is thus afforded to clergymen and others to form classes for religious instruction outside the four hours fixed by the Act for the ordinary school work. In some few instances zealous and competent clergymen have taken advantage of this provision on week days, with satisfactory results. The school buildings are in some cases used for Sunday-school purposes.

7. SECONDARY SCHOOLS.

High schools. For the purposes of secondary instruction high schools have been established in various parts of the colony. Each of these schools, of which twenty-two were in operation in 1888, is under a board of governors, and has been endowed with land. Such schools are quite distinct from the district high schools previously alluded to. In most cases the Minister of Education has power to inspect them, and in all cases an annual statement of accounts must be submitted to the Governor. The fees paid by day scholars in these institutions range from £5 5s. to £18 per annum. The fees in 1888 amounted to £22,703, and the income from endowments to £23,511.

8. SCHOLARSHIPS.

To advanced schools. Grants at the rate of 1s. 6d. a year for every child in average daily attendance are paid to boards for the establishment of scholarships, to be competed for by pupils attending the public schools, and scholarships may also be open to all children of school age. The holders of such scholarships must attend schools in which the higher subjects are taught, and every such school must be open to inspection by a public school inspector. In the year 1888, 213 scholarships were held, 124 by boys and 89 by girls. These scholarships range in annual value from £4 to £52 10s., and the holders are in some cases admitted to the secondary schools free of charge. They are tenable for periods varying from one year to three years. In 1888 the sum of £6,086 was expended on scholarships.

9. STATISTICS FOR 1888.

(a) *Primary Schools.*

Primary schools. The number of primary public schools in existence at the end of the year 1888 was 1,128. Included in this number are 60 half-time schools, counted for 30 schools.

The average attendance in all these schools during the last quarter of the year was 79.3, and in the different schools it was as follows:—

102 schools had an average attendance of ... under 15 pupils			
87	"	"	15 and under 20 "
123	"	"	20 " 25 "
383	"	"	25 " 50 "
147	"	"	50 " 75 "
69	"	"	75 " 100 "
88	"	"	100 " 150 "
66	"	"	150 " 300 "
34	"	"	300 " 500 "
29	"	"	500 and upwards

Total 1,128

The teachers employed during the last quarter of 1888 numbered 2,839, viz., Teachers 1,258 males and 1,581 females, exclusive of 155 sewing mistresses. They were, on the average, each entrusted with the charge of 32 pupils. They are classified as follow:—

Number of Teachers, 1888.

Classification.	Males.	Females.	Total.
Head (or sole) teachers ...	866	261	1,127
Assistants ...	173	626	799
Pupil teachers ...	219	694	913
Total ...	1,258	1,581	2,839

The number of children belonging to public schools at the close of 1888—that Scholars is, the number on the rolls after deducting those who had left—was 112,685,* viz., 58,364 males and 54,321 females; the average daily attendance for the year was 90,108, and for the last quarter of the year 90,849. Included in these numbers are 1,050 Maori and half-caste children.

The ages of children of both sexes belonging to the schools at the end of the last quarter of 1888 were as follow:—

Ages of Scholars, December, 1888.

Ages.	Boys.	Girls.	Total.
5 and under 7 years ...	10,495	9,563	20,058
7 " 10 " ...	21,481	19,860	41,341
10 " 13 " ...	19,352	17,864	37,216
13 " 15 " ...	6,048	5,855	11,903
Over 15 years ...	988	1,179	2,167
Total ...	58,364	54,321	112,685

* This represents as nearly as possible the number of distinct scholars at the end of the year. The total enrolment during the year was 152,221. But this number is greatly in excess of the actual number of individual children enrolled. Every child removing from one school to another during the year, or absent for a whole quarter and then returning, counts for two. The number of separate individuals enrolled probably does not exceed 120,000.

Income. Exclusive of balances carried forward (£25,118) the income of all the boards from the various sources for the year 1888 was as follows:—

1. Parliamentary grants—maintenance ...	£318,273	0	3
2. " " School buildings ...	46,783	10	0
3. Education reserves ...	31,882	3	1
4. Local receipts — fees for higher education, donations, etc. ...	2,494	14	4
5. Bank interest ...	317	10	2
Total ...	£399,750	17	10

Expenditure The expenditure for the same period was:—

1. Cost of management by boards ...	£9,566	11	10
2. Cost of inspection and examination ...	10,147	10	5
3. Maintenance of schools* ...	327,085	3	8
4. School buildings ...	30,354	13	9
Total ...	£377,153	19	8

(b) *Secondary Education.*

Schools. Twenty-two high schools furnished returns for 1888.

Teachers. There were 114 regular and 51 visiting teachers attached to these schools.

Scholars. The scholars on the rolls of these schools during the last quarter of 1888 were 2,120, viz., 1,335 boys, and 785 girls; and the average attendance was 2,004.

Ages of scholars. The ages of the scholars on the rolls were as follow:—

Under 10 years ...	57
10 to 15 years ...	1,129
15 to 18 years ...	852
Over 18 years ...	82
Total ...	2,120

10. MISCELLANEOUS.

SCHOOLS FOR NATIVES (MAORIS).

Maori schools, teachers, and scholars. In addition to the ordinary public primary schools, the Government maintains schools for natives in localities in which there are very few or no Europeans. The number of such schools in existence, during the last quarter of 1888, was 75, at which 65 male and 34 female teachers, besides 41 sewing mistresses, were employed. The scholars in attendance numbered 2,512, viz., 1,412 boys and 1,100 girls; and the average attendance was nearly 80 per cent.

Boarding schools. In addition to the ordinary day schools in the Maori settlements there are several boarding schools for native children in connexion with Church of England and Roman Catholic missions, at which the following numbers are maintained by the Government:—Boys, 33; girls, 47; total, 80. In some of these boarding schools the higher branches are taught to the native children.

Expenditure The expenditure on Native Education during the year 1888 was as follows:—

Teachers' salaries and allowances ...	£11,677	14	0
Paid for board at mission institutions ...	1,600	5	9
Inspection, school requisites, etc. ...	2,269	9	4
School buildings ...	1,441	18	7
Total ...	£16,989	7	8

* This includes teachers' salaries and allowances, grants to committees and schools, scholarships, cost of training schools, etc.

APPENDIX C.

TARIFFS OF THE AUSTRALASIAN COLONIES, IN CLASSIFIED ARRANGEMENT, INCLUDING EXCISE DUTIES 1889.

No material alterations of the Tariff have been made in any of the colonies, except Victoria, since the last publication of the *Victorian Year-Book*. The Victorian Tariff, however, was considerably altered by an Act (53 Vict. No. 1,019) which came into force on the 31st July, 1889.

CLASSIFICATION OF ARTICLES NAMED IN THE TARIFF.*

CLASS I.—ART AND MECHANIC PRODUCTIONS.

- Order 1. Books, etc.
 „ 2. Musical instruments
 „ 3. Prints, pictures, etc.
 „ 4. Carving, figures, etc.
 „ 5. Tackle for sports and games
 „ 6. Watches, philosophical instruments, etc.
 „ 7. Surgical instruments
 „ 8. Arms, ammunition, etc.
 „ 9. Machines, tools, and implements
 „ 10. Carriages, harness, etc.
 „ 11. Ships and boats, and matters connected therewith
 „ 12. Building materials
 „ 13. Furniture
 „ 14. Chemicals.

CLASS II.—TEXTILE FABRICS AND DRESS.

- Order 15. Wool and worsted manufactures
 „ 16. Silk manufactures
 „ 17. Cotton and flax manufactures
 „ 18. Drapery and haberdashery
 „ 19. Dress
 „ 20. Manufactures of fibrous materials.

CLASS III.—FOOD, DRINKS, ETC.

- Order 21. Animal food
 „ 22. Vegetable food
 „ 23. Drinks and stimulants.

CLASS IV.—ANIMAL AND VEGETABLE SUBSTANCES.

- Order 24. Animal substances
 „ 25. Vegetable „
 „ 26. Oils. †

CLASS V.—MINERALS AND METALS.

- Order 27. Articles connected with mining
 „ 28. Coal, etc.
 „ 29. Stone, clay, earthenware, and glass
 „ 30. Water
 „ 31. Gold, silver, specie, and precious stones
 „ 32. Metals other than gold and silver.

CLASS VI.—LIVE ANIMALS AND PLANTS.

- Order 33. Animals and birds
 „ 34. Plants.

CLASS VII.—MISCELLANEOUS MATTERS.

- Order 35. Miscellaneous articles of trade, etc
 „ 36. Indefinite articles.

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Entries.	Order.	Entries.	Order.	Entries.	Order.
Acid—acetic, other	... 14	Air-bricks	... 12	Almonds	... 22
Aërated waters	... 23	Ale and porter	... 23	Alum	... 14
Agricultural—Implements,		Alkali	... 14	Anchors	... 11
machinery	... 9	Almond oil	... 26	Animal food	... 21

* This system of classification is that recommended by a statistical conference of representatives of the Australasian colonies held in Tasmania in 1875.

† It being undesirable to separate the different kinds of oil, mineral as well as animal and vegetable oils are included under this head.

INDEX—continued.

Entries.	Order.	Entries.	Order.	Entries.	Order.
Animal substances ...	24	Brownware ...	29	Copra ...	25
Animals and birds ...	33	Brushware, brooms ...	35	Cordage ...	20
Antimony — crude, ore, regulus ...	32	Buckets and tubs, iron ...	32	„ iron, steel ...	32
Apparel ...	19	Building materials ...	12	Cordials ...	23
Arms and ammunition ...	8	Butter, butterine ...	21	Cork and corks cut ...	25
Arrowroot ...	22	Canary seed ...	25	Cornsacks ...	20
Arsenic ...	14	Candles ...	24	Cotton and flax manufac- tures ...	17
Artificial flowers ...	19	Canes ...	25	Cotton seed oil ...	26
Asphalte ...	14	Cannons ...	8	Cotton—piece goods, waste, wick ...	17
Axle—arms, boxes ...	10	Canvas ...	20	„ raw ...	25
Axles ...	10	Caps and hats—felt, silk, straw, etc. ...	19	Curiosities ...	36
Bacon ...	21	Caps, percussion ...	8	Currants ...	22
Bagging ...	20	Carbolic acid ...	14	Cutlery ...	9
Bags, sacks ...	20	Cards, playing... ..	1	Dogs ...	33
„ paper ...	25	Carpeting ...	15	Doors ...	12
Bark ...	25	Carriages, carriage ma- terials ...	10	Drake ...	25
Barley ...	22	Cartridges, cartridge cases ...	8	Drapery ...	18
Basket and wicker ware... ..	25	Carts, waggon, etc. ...	10	Dress ...	19
Bass ...	25	Carving, figures, etc. ...	4	Dried fruit ...	22
Bath bricks ...	29	Casks ...	25	Drinks and stimulants ...	23
Beans ...	22	Castor oil ...	26	Druggeting ...	15
Bêche de mer ...	21	Cattle ...	33	Drugs ...	14
Beef—salted ...	21	Cement ...	12	Dyes ...	14
Beer... ..	23	Chaff ...	25	Dynamite ...	8
Beeswax ...	24	Chain cables ...	11	Earthenware ...	29
Benzine ...	26	Chandeliers and gasaliers ...	13	Eggs ...	21
Birds ...	33	Cheese ...	21	Electro-plated ware ...	32
Biscuits ...	22	Chemicals ...	14	Emus ...	33
Bitters ...	23	Chicory ...	23	Engine-packing ...	20
Black oil ...	26	China matting ...	20	Engines, steam ...	9
„ sand ...	32	„ ware ...	29	Engravings ...	3
Blankets ...	15	Chinese oil ...	26	Essences and essential oils ...	14
Blasting powder ...	8	Chocolate ...	23	Explosives ...	8
Blue ...	25	Cider ...	23	Fancy goods ...	35
Boats ...	11	Cigars, cigarettes ...	23	Feathers ...	24
Boilers, steam... ..	9	Clay tobacco pipes ...	4	„ ornamental ...	19
Bolts and nuts ...	32	Clocks ...	6	Felt—sheathing, etc. ...	20
Bone-dust ...	24	Clover seed ...	25	„ hoods ...	19
Bones ...	24	Coal ...	28	Fencing wire ...	32
Bonnets ...	19	Cocoa beans ...	23	Fibre ...	25
Books, printed ...	1	Cocoanut fibre... ..	25	Firearms ...	8
Boots ...	19	„ oil ...	26	Firebricks ...	12
Boot-webbing ...	20	Cocoanuts ...	22	Fireworks ...	5
Borax ...	14	Cod, cod-liver oil ...	26	Firewood ...	25
Bottled fruit ...	22	Coffee ...	23	Fish — fresh, preserved, salted, shell ...	21
Bottles ...	29	Coir and other matting... ..	20	„ ova ...	33
Bran ...	25	Coke ...	28	Flannels—piece ...	15
„ bags ...	20	Colours ...	14	Flax ...	25
Brandy ...	23	Colza oil ...	26	„ manufactures ...	17
Brassware ...	32	Combs ...	24	Flock ...	24
Bricks—air, clay, fire ...	12	Confectionery ...	22	Floorcloth ...	20
„ bath ...	29	Copper — ore, regulus, sheet, ware, wire ...	32	Flour ...	22
Bristles ...	24	„ specie ...	31		
Broadcloths, etc. ...	15				
Broom corn ...	25				
Brooms—hair, brushware ...	35				

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Entries.	Order.	Entries.	Order.	Entries.	Order.
Flour sacks ...	20	Hay ...	25	Machinery—agricultural,	
Flowers, artificial ...	19	Hemp ...	25	weaving and spinning	9
Food, animal ...	21	Hides ...	24	Machines, tools, and im-	
„ vegetable ...	22	Holloware ...	35	plements ...	9
Fresh fish, meat ...	21	Honey ...	21	Maize ...	22
Fruit—bottled, dried,		Hoofs ...	24	Maizena and corn flour ...	22
green, currants, raisins	22	Hops ...	23	Malt ...	22
Fuel ...	28	Horned cattle... ..	33	Manufactured articles of	
Furniture, furniture		Horns ...	24	cotton, woollens, silks,	
spring ...	13	Horses ...	33	etc. ...	18
Furs ...	19	Hosiery ...	19	Manufactures of fibrous	
Fuse ...	8			materials ...	20
Galvanized iron—cordage,		Implements, agricultural	9	Manufactures of mixed	
buckets, tubs, gutter-		Indefinite articles ...	36	metals ...	32
ing, sheet, ware ...	32	Indiarubber goods ...	25	Manures ...	14
Gasaliers and chandeliers	13	Ink—printing, coloured		Marble ...	29
Gasoline oil ...	26	and writing ...	14	Matches ...	14
Gelatine, blasting ...	8	Instruments, musical ...	2	Materials, building	12
Gin ...	23	„ optical ...	6	„ carriage ...	10
Ginger, ground ...	23	„ scientific ...	6	„ hatters' ...	19
Glass—bottles, plate, win-		„ surgical ...	7	„ printing ...	35
dow, ware ...	29	Iron—bar, castings, gal-		„ telegraphic ...	35
Gloves ...	19	vanized, hoop, ores, pig,		„ watchmakers'	6
Glucose ...	22	pipes, plate, rod, scrap,		Mats ...	20
Glue, glue pieces ...	24	sheet, ware, wire, etc.	32	Matting—China, coir ...	20
Glycerine ...	14	Ironmongery ...	35	Meal, linseed ...	25
Goat skins ...	24	„ saddlers' ...	10	„ oat ...	22
Goats ...	33	Isinglass ...	21	Meats—fresh, preserved	21
Gold—leaf, plate, specie...	31	Ivory ...	24	Medicinal oil ...	26
Goods manufactured, un-				„ roots ...	14
enumerated... ..	36	Jaconet frilling and		Medicines, patent ...	14
Grain ...	22	ruffling, etc. ...	19	Meerscham pipes ...	4
Gram ...	22	Jams and preserves ...	22	Metals, other than gold	
Grass seeds ...	25	Jewellery ...	31	and silver ...	32
Grates and stoves ...	32	Jute ...	25	Methylated spirits ...	14
Grease ...	24	„ piece goods ...	20	Milk, preserved ...	23
Greasy wood ...	24	Kangaroo skins ...	24	Millet ...	25
Grindery ...	35	Kerosene oil ...	26	Millinery ...	19
Grindstones ...	29	„ shale ...	28	Millstones ...	29
Guano ...	14	Lamps and lampware ...	13	Mineral earths, clays, etc.	32
Gum ...	25	Lard ...	21	„ oil, undefined ...	26
Gun caps ...	8	„ oil ...	26	Miscellaneous articles of	
Gun cotton ...	8	Lead—ore, pig, pipe, sheet	32	trade ...	35
Gunny bags ...	20	Leather, leatherware ...	24	Molasses ...	22
Gunpowder ...	8	Leeches ...	33	Mouldings ...	4
Gutta-percha goods ...	25	Lime ...	12	Musical instruments ...	2
Haberdashery... ..	18	Limejuice ...	23	Muslins ...	17
Hair—curled, seating ...	24	Linen piece goods ...	17	Mustard ...	23
Hams ...	21	Linseed meal ...	25	Mutton-bird oil ...	26
Hardware ...	35	„ oil ...	26	Nails ...	32
Hares ...	33	Liquorice ...	22	Naphtha ...	14
Harmoniums ...	2	Lithofracteur ...	8	Natural history, speci-	
Harness ...	10	Live animals ...	33	mens of ...	36
Hats and caps—felt, silk,		Lubricating oil ...	26	Neatsfoot oil ...	26
straw, etc. ...	19	Macaroni ...	22	Nets and netting ...	20
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				Nuts ...	22

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Entries.	Order.	Entries.	Order.	Entries.	Order.
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Oars ...	11	Pollard ...	25	Sausage skins ...	24
Oatmeal ...	22	Porcelain ...	29	Scientific instruments ...	6
Oats ...	22	Pork, salted ...	21	Scoured wool ...	24
Oilcake ...	25	Potatoes ...	22	Screws ...	32
Oilcloth ...	20	Poultry ...	33	Seal oil ...	26
Oilmen's stores ...	35	Powder—blasting, sport- ing ...	8	Seal skins ...	24
Oils of all kinds ...	26	Precious stones ...	31	Seeds—canary, clover, grass ...	25
„ in bottles ...	26	Preserved fish, meats ...	21	Seed oil ...	26
Olive oil ...	26	„ milk ...	23	Sewing machines ...	9
Onions ...	22	„ vegetables ...	22	Shale ...	28
Opium ...	14	Preserves ...	22	Sheep ...	33
Opossum skins ...	24	Printing ink ...	14	„ skins ...	24
Optical instruments ...	6	„ materials ...	35	Shell—pearl, tortoise ...	24
Ordnance stores ...	35	„ paper ...	25	Shellfish ...	21
Ore—antimony, copper, iron, lead, tin ...	32	Prints, pictures, etc. ...	3	Ships, boats, etc. ...	11
„ bags ...	20	Provisions, preserved and salted ...	21	Shoes ...	19
Ores, mineral, earths, clays, etc. ...	32	Pulse ...	22	Shot ...	8
Organs ...	2	Pulu ...	25	Silk—manufactures, mix- tures; silks ...	16
Ornamental feathers ...	19	Pumice stone ...	29	Silver—plate, specie ...	31
Ova ...	33	Putty ...	29	Skins ...	24
Oxalic acid ...	14	Quartz ...	31	Slate slabs ...	29
Paintings ...	3	Quicksilver ...	32	Slates, roofing ...	12
Paints ...	14	Rabbit skins ...	24	Slops ...	19
Palm oil ...	26	Rags ...	25	Snuff ...	23
Paper—bags, hangings, patterns, printing, wrapping, writing ...	25	Railway rails, chairs, etc. ...	32	Soap ...	24
Parasols ...	19	Raisins ...	22	Soda—ash, bicarbonate, caustic, crystals, nitrate, silicate ...	14
Patent leather ...	24	Rape oil ...	26	Specie ...	31
„ medicines ...	14	Rattans ...	25	Specimens of natural his- tory ...	36
Peanuts ...	22	Raw cotton ...	25	Spelter ...	32
Pearl barley ...	22	„ sugar ...	22	Sperm oil ...	26
„ shell ...	24	Refined sugar ...	22	Spices ...	23
Pease ...	22	Regulus ...	32	Spinning and weaving ma- chinery ...	9
Peel, drained ...	22	Resin ...	25	Spirits, methylated ...	14
Pepper ...	23	Ribbons ...	16	„ other ...	23
„ ground ...	23	Rice ...	22	Split pease ...	22
Perfumed spirits ...	23	Rock salt ...	23	Sponges ...	24
Perfumery ...	23	Roots, medicinal ...	14	Starch ...	25
Personal effects ...	36	Rope ...	20	Stationery ...	1
Phormium, N.Z. ...	25	Rugs ...	15	Steam boilers, engines ...	9
Photographic goods ...	35	Rum ...	23	Stearine ...	24
Pianofortes ...	2	Rye ...	22	Steel, cordage ...	32
Pickles ...	23	Saccharum ...	22	Stimulants ...	23
Picric acid ...	14	Sacks, bags ...	20	Stone, clay, earthenware, and glass ...	29
Pigs ...	33	Saddlery ...	10	„ grind, mill, ware, etc. ...	29
Pine oil ...	26	Saddler's ironmongery ...	10	Stoves ...	32
Pipes—iron, lead ...	32	Saddletries ...	10	Straw ...	25
„ tobacco ...	4	Sago ...	22	„ hats ...	19
Pistols ...	8	Salad oil ...	26	Sugar—candy, raw, refined ...	22
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TARIFF OF VICTORIA.

(Corrected up to 1st October, 1889.*)

IMPORT DUTIES.

Order.	Articles Imported by Land or Sea.	Rate of Duty.
		£ s. d.
1	Cards, Playing ... per doz. pcks.	0 3 0
	„ „ in Sheets ... „	0 2 6
	Stationery, Manufactured, as under—	
	Albums of all sorts ... ad valorem	20 per cent.
	Blotters, Blotting Cases, Blotting Pads, Bill-heads, and all other printed, ruled, or engraved forms or paper, bound or unbound, including Printed or Lithographed Advertisements or Posters of all kinds when framed „	„
	Books—Account, Betting, Cheque, Copy, Diary, Drawing, Exercise, Guard, Letter, Music, Memo., Pocket, Receipt, Sketch ... „	„
	Bill Files and Letter Clips ... „	„
	Cards—Printers', Visiting, Funeral, Menu, Programme, Wedding, in sheet or cut ...	„
	Card Cases, not being of Gold or Silver ... „	„
	Date Cases, Cards, Calendars ... „	„

* A revised tariff came into force on the 31st July, 1889.

IMPORT DUTIES—continued.

Order.	Articles Imported by Land or Sea.					Rate of Duty.		
						£	s.	d.
1	Stationery, Manufactured, as under—					20 per cent.		
	Envelopes	...	...	...	ad valorem			
	Ink Bottles, Inkstands, Ink Wells	...	...	...	"
	Labels—Luggage and other	...	...	...	"
	Memo. Slates and Tablets	...	...	...	"
	Mounts or Stands for Pictures	...	...	...	"
	Parchment—Cut	...	...	...	"
	Sketch Blocks	...	...	...	"
	Wrappers—Fancy, for Writing Paper	...	...	...	"
	Writing Cases, Desks, and Stationery Cases	...	...	...	"
2	Instruments, Musical (except action-work in separate pieces, including Rails and Keys), including second-hand—					25 per cent.		
	Pipe Organs and all parts thereof, including Pianoforte action, made up	...	...	...	"
	Pianos, upright	...	...	...	each	5	0	0
	" Square, Grand, or Semi-Grand	...	...	...	"	15	0	0
	Harmoniums and Cabinet Organs, not otherwise enumerated...	...	...	...	"	3	0	0
4	Architraves and Mouldings of all sorts, wholly or partly prepared—							
	Under 3 inches	...	...	...	per 100ft. lin.	0	4	0
	3 inches and over	...	...	...	"	0	7	0
	Pipes—Smoking, Clay	...	...	...	per gross	0	1	0
	" " All other, and Cigar and Cigarette Holders	...	...	...	ad valorem	25 per cent.		
	" Cases for Pipes, Cigar and Cigarette Holders	...	...	...	"	"
5	Fireworks					20 per cent.		
6	Clocks, and all parts thereof, whether wholly or partly made up					"		
	Watches, and all parts thereof, wholly or partly made up					"		
8	Explosives (except Fine Meal Powder, not Sporting, in bulk and in packages of not less than 25 lbs. each), viz. :—							
	Powder, Sporting	...	...	...	per lb.	0	0	3
	" Blasting	...	...	...	"	0	0	1
	Gelatine and Gelatine Dynamite (on and after 25th September, 1889)	...	...	...	"	0	0	1
	Other Explosives	...	...	...	"	0	0	4
	Fuze, per coil of 24 ft. or less, and in proportion for any greater quantity	...	...	...		0	0	1½
	Shot	...	...	...	per lb.	0	0	1
9	Engines, being Portable Engines, fixed on a Locomotive Boiler horizontally, and fitted up with wheels and shafts suitable for transport on an ordinary road					25 per cent.		
	H Rolled Girder and Channel Iron Castings, viz. :—							
	Cylinders—Hydraulic	...	} On and after 18th } September, 1889 }		per ton	3 0 0		
	Pipes, and connections for same	...						
	Plates—Tank	...						
	Bars—Fire	...						
	Weights—Sash	...						
	Implements (Agricultural)*	...	...	...	ad valorem	20 per cent.		

* The following are now considered by the department to be agricultural implements:—Chaff-cutters, Cleaners, Corn Screens, Corn Crushers, Cultivators, Drills—Seed, Harrows, Hay Presses, Hay Rakes, Horse Rakes, Horse Hoes, Maize Shellers, Mowers, Ploughs, Reapers, Rollers—Field, Root Cutters, Seed-sowers, Smutters, Strippers, Stump Extractors, Threshers, Wheat Cleaners, Winnowers.

IMPORT DUTIES—continued.

Order.	Articles Imported by Land or Sea.	Rate of Duty.
		£ s. d.
10	Axles—	
	Common Dray, with Linchpins ad valorem	25 per cent.
	Common nut and others not enumerated—	
	Up to 1½ inch diameter inclusive... .. per arm	0 3 0
	Above 1½ inch ditto, ditto "	0 4 6
	Mail patent, up to 1½ inch diameter inclusive "	0 4 6
	" above 1½ inch "	0 7 0
	Other patent Axles, with brass caps "	0 10 0
	Carriages, Carts, and Conveyances, including second-hand, viz. :—	
	Boston Chaises, Dog Carts, Gigs, Tilburys, and other Two-wheeled Vehicles on Springs or thorough braces each	10 0 0
	Buggies—Four-wheeled Without Tops, mounted on springs	15 0 0
	Waggons for carrying Goods or thorough braces	
	" Single or Double Seated "	
	" Express "	
	Hansom Safety Cabs	20 0 0
	Waggons—Single and Double seated with Tops	
	Waggonettes "	
	Buggies—Four-wheeled	
	Omnibuses and Coaches for carrying mails or passengers	40 0 0
	Barouches	50 0 0
	Broughams	
	Drags	
	Landaus	
	Mail Phaetons	
	All Carts and Waggons without springs, and Spring Carts and Spring Drays with Two wheels ad valorem	20 per cent.
	All Carriages or Conveyances not otherwise enumerated	25 per cent.
	Bicycles, Tricycles, and similar Vehicles, Perambulators, Children's Carriages, whether wholly or partly made up, or parts of same	"
	* Parts of Carriages :—	
	Sets of Wheels (unbored and untired) per set	2 0 0
	Poles each	0 5 0
	Shafts and Bars per set	0 1 0
	Under Gear (including axles and arms) "	4 0 0
	Buggy Tops (if composed principally of leather) each	5 0 0
	" " (if of any other material) "	3 0 0
	Carriage bodies in the white "	5 0 0
	† Saddle-trees :—	
	Harness per dozen	0 10 0
	Riding "	1 0 0
12†	Bricks—Fire per 1,000	1 0 0
13	Furniture, including second-hand, on and after 20th September, 1889 ad valorem	35 per cent.
	Lamps, Lampware, and Lanterns (except Electroliers and Gasaliers, otherwise dutiable as Manufactures of Metal), on and after 18th September, 1889	25 per cent.
	Springs—Sofa, Chair, and other furniture	10 per cent.

* Any separate parts of carriages not specially enumerated as dutiable or free are chargeable with such duty as the Commissioner may determine under section 5 of *Duties of Customs Act 1883*.

† See also "Leatherware," under Order 25.

† See also under "Timber," Order 25.

IMPORT DUTIES—continued.

Order.	Articles Imported by Land or Sea.	Rate of Duty.		
		£	s.	d.
14	Blacking, including Burnishing Ink, Dressing, Harness Polishing, and Paste ad valorem	25	per cent.	
	Drugs, viz. :—			
	Acid, Acetic, containing not more than 30 per cent. acidity per pint or lb.	0	0	3
	„ „ for every extra 10 per cent. or part of 10 per cent. above 30 per cent. „ „	0	0	1
	„ Muriatic per cwt.	0	5	0
	„ Nitric „	0	5	0
	„ Sulphuric „	0	5	0
	Ammonia, Carbonate of per pint or lb.	}	0	0 2
	„ Liquid „ „			
	Chlorodyne ad valorem	25	per cent.	
	Cocculus Indicus per lb.	0	1	0
	Gelatine „	0	0	6
	Glycerine, Pure „	0	0	3
	„ Crude „	0	0	1
	Morphia per oz.	0	1	6
	Nitrate of Silver „	0	0	6
	Nux Vomica per lb.	0	0	2
	Strychnine per oz.	0	1	0
	Inks—Writing, Liquid, or Powder ad valorem	10	per cent.	
	Ink (printing), coloured per lb.	0	0	6
	Medicines—Consisting of two or more ingredients mixed ready for use, not being in chemical combination; Drugs and Chemicals, packed ready for retail sale or consumption, including medical compounds containing spirits not exceeding the strength of proof by Sykes' Hydrometer; and all preparations recommended as beneficial for any portion of the human or animal body, or the cure or the treatment of any disease or affection whatever; and Medicine Chests or Cases, with or without fittings, on and after 20th September, 1889 ad valorem	25	per cent.	
	Matches and Vestas—Wax Vestas—			
	For every gross of metal boxes, not otherwise specified, containing in each box—			
	100 Vestas or under	0	1	3
	Over 100 and not exceeding 200 Vestas	0	2	6
	And so on per gross of metal boxes for each additional 100 Vestas or part thereof additional	0	1	3
	For every gross of paper, small round tin, or other boxes, containing in each box—			
	100 Vestas or under	0	1	0
	Over 100 and not exceeding 200 Vestas	0	2	0
	And so on per gross of boxes for each additional 100 Vestas or part thereof additional	0	1	0
	Wooden Matches—			
	For every gross of boxes, containing in each box—			
	100 Matches or under	0	0	6
	Over 100 and not exceeding 200 Matches	0	1	0
	And so on per gross of boxes for each additional 100 Matches or part thereof additional	0	0	6

IMPORT DUTIES—continued.

Order.	Articles Imported by Land or Sea.	Rate of Duty.		
		£	s.	d.
14	Opium, including all goods, wares and merchandise mixed or saturated with opium, or with any preparation or solution thereof, or steeped therein respectively per lb.	1	0	0
	Powders—Baking, Seidlitz, Washing ad valorem	20	per cent.	
	Paints and Colours (except Artists' Colours) —			
	Ground in Oil, including Patent Dryers and Putty per ton	2	0	0
	Mixed ready for use, from or of any substance „	4	0	0
	Soda Crystals „	2	0	0
	Spirits—Methylated per liq. gal.	0	1	0
	Varnish (including lithographic) „	0	2	0
15	Carpeting and Drugeting ad valorem	20	per cent.	
	Woollen Manufactures, or Manufactures containing Wool (except Printers' Blankets), viz.:—			
	Piece Goods, whether in the piece or cut into lengths or shapes, being Vestings, Trouserings, Coatings, Shirtings, Broadcloths, Witneys, Naps, Flannels, Mantle Cloths, Cloakings, Ulsterings, Kerseys, Serges, Costume Cloths, Melton Cloths, and Tweeds (on and after 20th September, 1889) „	30	per cent.	
	Dress Goods not otherwise enumerated, containing Wool, up to 31st December, 1889 „	7½	per cent.	
	Blankets, Blanketing, Rugs and Rugging „	25	per cent.	
16	Silks (except Hatters' Silk Plush, Umbrella Silk, Silk for Flour Dressing, Silk Fags, Oil Silk, Fringes, Tassels, and Gimp for Furniture, Reps, Damasks, and other material for covering Furniture) in the Piece, or Piece Goods containing Silk, whether cut into lengths or shapes or not „	20	per cent.	
17	Tents and Tarpaulins „			
18	Bags—Fancy, Hand, Reticules, or Travelling, including the articles belonging thereto (if any) „	25	per cent.	
	Boxes or Cases, viz.—Dressing, Glove, Handkerchief, Jewel, Scent, Work, including the articles belonging thereto (if any) „			
	Quilts—Sewn, Cosies and Cushions, to 10th September, 1889 „	20	per cent.	
	Ditto, on and after 11th September, 1889 „	30	per cent.	
19	Apparel, Articles of, being wholly or partly made up from materials containing wool, the duty on which is 30 per cent. ad valorem on importation „	35	per cent.	
	Apparel, Slops, Clothing, Underclothing, and articles of attire, not otherwise enumerated, whether wholly or partly made up (except Diving Dresses, including the Boots, Gloves, and Helmets for such Dresses) „	25	per cent.	
	*Boots and Shoes—English sizes of 1888 to be the standard (except Children's, 0 to 3, and slippers of straw only), viz.:—			
	Men's, No. 6 and upwards per doz. pairs	2	5	0
	Youths', Nos. 2-5 „	1	10	0

* For Boot-Uppers, etc., see Leather, Order 24.

IMPORT DUTIES—continued.

Order.	Articles Imported by Land or Sea.	Rate of Duty.		
		£	s.	d.
19	*Boots and Shoes—English sizes of 1888 to be the standard (except Children's, 0 to 3, and slippers of straw only), viz.:—			
	Boys', Nos. 7-1 per doz. pairs	1	3	6
	Women's, Nos. 3 and upwards "	1	8	6
	Girls', Nos. 11-2... .. "	1	2	0
	„ Nos. 7-10 "	0	15	6
	Children's, Nos. 4-6, and Slippers "	0	6	0
	With Uppers of Lasting or of other material not being Leather, with or without Leather Toe-caps, but not goloshed or vamped with Leather "	0	19	0
	Slippers, Nos. 7-2 "	0	9	0
	„ Not otherwise mentioned "	0	12	0
	Shoes—Spiked "	0	12	0
	Goloshes or Overshoes "	0	4	0
	Boots and Shoes of Indiarubber "	0	12	0
	Fur Skins—Dressed or Prepared for making up per lb.	0	0	2
	Fur—Hatters' (except Mungo), on and after 6th September, 1889 ad valorem	25	per cent.	
	Frilling, Ruffling, Plaitings, Ruchings "			
	Feathers for ornamental purposes "			
	Gloves "	20	per cent.	
	Hair—Articles of artificial human hair manufactured, viz., Headdresses, Hair Plaits, Hair Plait Stems, Side Pads, Chignons "	25	per cent.	
	Curled per lb.	0	0	2
	Handkerchiefs (except of Cotton or Linen only), whether made up or in the piece, on and after 11th September, 1889 ad valorem	10	per cent.	
	Hats, Caps, and Bonnets (except of Braid, Chip, Straw, Tape, Willow, untrimmed and all such being both untrimmed and unlined, on and after 1st January, 1890, Paper or glazed Calico not being considered lining), viz.:—			
	Hats and Caps—Cloth, sewn, and not upon any foundation or frame per dozen	0	8	0
	Hats—Children's, Boys', Men's, or Women's Felt, and Pith Hats or Helmets, to 10th September, 1889 "	0	15	0
	„ „ on and after 11th September, 1889 "	1	0	0
	Hats, with a Calico or other foundation or frame, and covered with any material "	1	10	0
	Hats—Dress, to 10th September, 1889 "	2	8	0
	„ „ on and after 11th September, 1889 "	3	0	0
	Hats, Caps, and Bonnets, all other ad valorem	25	per cent.	
	Hoods—Felt, Pull-over Hoods, and any article of felt prepared for the manufacture of hats per dozen	0	5	0
	† Hosiery (except of Cotton, Linen, and Elastic Silk Stockings for surgical purposes or otherwise specified), on and after 11th September, 1889 ad valorem	25	per cent.	

* For Boot-Uppers, etc., see Leather, Order 24.

† Hosiery means Stockings, Socks, and other Machine or Hand knit Covering for the feet or legs, and no other articles. (Sec. 7, Act 769.)

IMPORT DUTIES—continued.

Order.	Articles Imported by Land or Sea.	Rate of Duty.
		£ s. d.
19	Parasols, Sunshades, and Umbrellas, with or without Covers, made up wholly or in part, viz. :— From Materials not containing Silk ... each " containing Silk ... "	0 1 0 0 2 6
	Parasol, Sunshade, and Umbrella Sticks, when wholly or partly fitted with Frames ... "	0 1 0
	Waterproof rugs and Horse Clothing, on and after 25th September, 1889 ... ad valorem	25 per cent.
20	Bags and Sacks (except Gunnies and Sugar Mats), the capacity of which is less than 3 bushels ... per dozen	0 0 6
	Cordage (except unserviceable, when cut into lengths of not over 3 feet, Metal Cordage, Coir Yarn, Reaper and Binder Twine), viz. :— Coir Rope ... per cwt. Other Cordage, including Engine Packing (not being Sheet) and Housing and Seizing Lines, and Spun yarn ... "	0 5 0 0 12 0
	Cloths—Oil and other Floor ... ad valorem	20 per cent.
	Jute piece goods, up to 31st December, 1889 :— Not exceeding 3 ft. in width ... per yard Exceeding 3 ft. ... "	0 0 0 $\frac{1}{4}$ 0 0 0 $\frac{1}{2}$
	Matting—Coir, Jute ... ad valorem	20 per cent.
	Mats ... "	25 per cent.
	Reaper and Binder Twine and Yarn made from Jute, Hemp, or Flax, on and after 25th September, 1889 ... per cwt. Twine (except sewing or seaming of Hemp, Cotton, or Flax) ... per lb.	0 8 0 0 0 2 $\frac{1}{4}$
21	Butter ... "	0 0 2
	Butterine and Oleomargarine ... "	0 1 0
	Cheese ... "	0 0 2
	Eggs ... per gross	0 2 0
	Fish (<i>see</i> Meats).	
	Honey ... per pt. or lb.*	0 0 2
	Meats and Fish—Potted; and Meats, Fish, Soups, and Vegetables—Extracts of, or concentrated ... ad valorem	20 per cent.
	Meats and Fish—Preserved; not salted, or dried, or preserved in brine ... per pt. or lb.*	0 0 2
	Hams ... per lb.	0 0 2
	Bacon ... "	0 0 2
	Provisions (including Vegetables), salted, dried, or preserved in brine (except fish not otherwise enumerated) ... per cwt.	0 5 0
22	Almonds ... per lb. or pt.*	0 0 2
	Arrowroot ... "	0 0 2
	Biscuits ... per lb.	0 0 2
	Confectionery, Comfits, Succades, Sweetmeats ... per pt. or lb.*	0 0 2
	Fruits and Vegetables—Dried or preserved ... per lb.	0 0 2
	" Preserved (not dried) packed in bottles, jars, or other vessels, as under :— Quarts and over a pint ... per doz. Pints and over half-a-pint ... " Half-pints and smaller sizes ... " Over a quart and not exceeding a gallon ... "	0 6 0 0 3 0 0 1 6 0 18 0

* Per pint or lb., or reputed package of that quantity or weight, and so in proportion for any such reputed quantity or weight.

IMPORT DUTIES—*continued.*

Order.	Articles Imported by Land or Sea.	Rate of Duty.		
		£	s.	d.
22	Fruits—Boiled, or partly boiled, or pulp per lb.	0	0	3
	„ Green, not otherwise enumerated per bush.	0	1	6
	„ „ being Oranges or Lemons „	0	0	9
	Grain, viz.:—			
	Oats and Barley (on and after 24th October, 1889) ... per cental	0	3	0
	Maize, Peas, Beans, Wheat (on and after 24th October, 1889) „	0	2	11
	Rice:—			
	Undressed, imported into any bonded warehouse and dressed therein „	0	4	0
	Paddy „	0	2	0
	Prepared, viz.:—			
	Barley—Pearl and Scotch (on and after 24th October, 1889) „	0	7	6
	Oatmeal (on and after 24th October, 1889) „	0	9	0
	Maizena, Maize Flour, or Corn Flour per pt. or lb.*	0	0	2
	Malt per bush.	0	4	6
	Grain and Pulse of every kind, not otherwise enumerated, when prepared or in any way manufactured ... per cental	0	5	0
	Jams or Jellies per pt. or lb.*	0	0	3
	Macaroni and Vermicelli „	0	0	2
	Molasses (except unrefined) per cwt.	0	3	0
	Nuts (except Cocoanuts and Candlenuts) per lb.*	0	0	2
	Onions per ton	1	0	0
	Peel, candied, drained, or preserved per lb.	0	0	2
	Potatoes per ton	0	10	0
	Sugar:—			
23	The produce of Beet-root and all other Sugar ... per cwt.	0	6	0
	„ Sugar-cane „	0	3	0
	„ „ bonded on and after the 27th July, 1887, and refined in Victoria in a bonded warehouse under regulations to be framed by the Governor-in-Council „	0	2	0
	Sugar Candy per pt. or lb.*	0	0	2
	Vegetables (<i>see</i> Provisions, Order 21, and Fruits <i>ante</i>).			
	Ale, Porter, Spruce, and other beer, Cider and Perry ... per gallon †	0	0	9
	Beer, Lager, on and after 20th September, 1889—quarts ... per dozen	0	3	0
	„ „ „ pints „	0	1	6
	Coffee, Cocoa, Chicory, Chocolate per lb.	0	0	3
	Hops, from 24th October, 1889 „	0	0	8
	Mustard „	0	0	2
	Milk—Preserved per pt. or lb.*	0	0	2
	Perfumery ad valorem.	20 per cent.		
	Pickles (packed in Bottles, Jars, or other vessels, not exceeding one gallon in size) as under:—			
	Quarts and over a pint per dozen	0	3	0
	Pints and over half-a-pint, on and after 11th September, 1889 „	0	2	6
	Half-pints and smaller sizes „	0	1	0
	Over a quart and not exceeding a gallon „	0	12	0

* Per pint or lb., or reputed package of that quantity or weight, and so in proportion for any such reputed quantity or weight.

† Or for six reputed quart bottles, or for 12 reputed pint bottles.

IMPORT DUTIES—continued.

Order.	Articles Imported by Land or Sea.	Rate of Duty.
		£ s. d.
23	Pickles, all other, on and after 11th September, 1889 ... ad valorem	20 per cent.
	Salt (except rock salt) ... per ton	1 0 0
	Sauces, packed in Bottles, Jars, or other vessels, not exceeding one gallon in size, as under, viz. :—	
	Quarts and over a pint ... per dozen	0 4 0
	Pints and over half-a-pint ... „	0 2 0
	Half-pints and smaller sizes ... „	0 1 0
	Over a quart and not exceeding a gallon ... „	0 12 0
	All other ... ad valorem	10 per cent.
	Spices, ground ... per pint or lb.*	0 0 2
	Spirits—Perfumed ... per gallon	1 4 0
	Spirits or strong waters of any strength not exceeding the strength of proof by Sykes' hydrometer, and so in proportion for any greater strength than the strength of proof ... per gallon	†0 12 0
	Spirits, Cordials, Liqueurs, or Strong Waters, sweetened or mixed with any article, so that the degree of strength cannot be ascertained by Sykes' hydrometer (including all alcohol diluted or undiluted with water or other menstruum, and containing in solution any essence, essential oil, ether, or other flavouring or other substance, whether of natural or artificial origin)... per gallon	0 12 0
	Tea, up to 31st December, 1889 ... per lb.	0 0 3
	„ from 1st January, 1890 ... „	0 0 1
	Tobacco (except Sheepwash, including tobacco soaked on the landing thereof from the importing ship or on delivery from the warehouse in turpentine, oil, or other fluid in the presence of some officer of Customs, so as to render it unfit and useless for human consumption) :—	
	Manufactured ... per lb.	0 3 0
	Unmanufactured ... „	0 1 0
	Cigars ... „	0 6 0
	Snuff ... „	0 3 0
	Vinegar, not being Acetic Acid or Crude Vinegar, Aromatic or Raspberry ... per gallon	0 0 6
	Waters, Aerated or Mineral ... ad valorem	10 per cent.
	‡ Wine—Sparkling ... per gallon	0 8 0
	„ Other ... „	0 6 0
24	Candles ... per lb.	0 0 2
	Combs—Toilet ... ad valorem	10 per cent.
	Glue ... per lb.	0 0 2
	„ Liquid, and Liquid Gum and Cements ... ad valorem	20 per cent.
	Grease—Antifriction, on and after 25th September, 1889 ... per ton	3 0 0
	Leather—Wellington Fronts and Grafts ... per doz pairs	0 6 0
	Uppers of Cashmere, Lasting, or Stuff ... „	0 3 0
	Clogs and Pattens ... ad valorem	20 per cent.

* Per pint or lb., or reputed package of that quantity or weight, and so in proportion for any such reputed quantity or weight.

† Or 24s. for each reputed 2-gallon case, or 48s. for each reputed 4-gallon case, when the said cases respectively do not contain more than the reputed contents, and so on for each reputed gallon or part of a gallon.

‡ Wine containing more than 25 per cent. of alcohol of the S.G. .825 at the temperature of 60° Fahrenheit is chargeable with duty as spirits.

IMPORT DUTIES—continued.

Order.	Articles Imported by Land or Sea.	Rate of Duty.		
		£	s.	d.
24	Leather (except Crust or Rough-tanned, viz. :— Calf, Goat, Hogskin, Sheep, or Kangaroo, when not exceeding seven pounds each Skin; and English Bend, sometimes called Butt) per lb.	0	0	6
	„ being Kid and Mock Kid, and Patent Calf, up to 31st December, 1889 ad valorem	7½	per cent.	
	„ being Furniture and Bookbinding Morocco, Roan, and Paste Grain Skiver, on and after 25th September, 1889 per lb.	0	1	0
	„ Laces „	0	1	0
	„ Uppers—Closed, Men’s per doz. pairs	1	4	0
	„ „ „ Women’s and Children’s „	0	18	0
	Leatherware, Harness, Saddles, or Articles made up of Leather, or any Manufacture of which Leather is the most valuable part, including Whips of any description, Trunks and Portmanteaus, and Leather cut into shapes, not otherwise enumerated... .. ad valorem	25	per cent.	
	Soap—Perfumed and Toilet per lb.	0	0	4
	„ other „	0	0	2
	Stearine „	0	0	2
25	Buckets and Tubs (Wooden) ad valorem	25	per cent.	
	Beehives, on and after 25th September, 1889 „		„	
	Boxes—Cardboard or Paper, including Paper or Cardboard (with or without Printing) cut into shapes for wrapping or boxing „	0	0	2
	Blue per lb.	0	0	2
	Corks, cut „	0	0	4
	Casks or Shooks, new or second-hand ad valorem	25	per cent.	
	Paper (except Writing and Printing in original wrappers and uncut edges as it leaves the mill; Paperhangings and Millboard):— Cut per lb.	0	0	2
	Advertising Matter, Printed or Lithographed, or any Printed Plates, Lithographs, Pictures, Cards, or matter of a similar description used, or capable of being used, for advertising purposes, to 10th September, 1889 „	0	0	2
	Ditto, on and after 11th September, 1889 „	0	0	4
	Cardboards and Pasteboards, on and after 11th September, 1889 per cwt.	0	4	0
	Paper—Other, before 25th September, 1889 „	0	4	0
	„ „ on and after „ „ „	0	6	0
	„ Bags, before 25th September, 1889 „	0	10	0
	„ „ on and after „ „ „	0	15	0
	Seeds—Canary ad valorem	10	per cent.	
	Starch per lb.	0	0	2

IMPORT DUTIES—continued.

Order.	Articles Imported by Land or Sea.		Rate of Duty.		
			£	s.	d.
25	Timber and Building Materials:—				
	Except.	<p> Ash, Australian and New Zealand Pine, Black-wood, Cedar, Hickory, Oak, Posts and Rails, Staves, Sycamore, Walnut, Whitewood } Undressed. Hardwood—Undressed logs, of the size of 9 inches square or larger California Redwood, Sugar Pine, American White Pine, undressed, 1 inch and over All other undressed, of the size of 7 inches by 2½ inches or larger Spokes and Felloes of Hickory, in the rough Spars, in the rough </p>			
		Architraves and Mouldings of all sorts, wholly or partly prepared, under 3 inches ... per 100 ft. lin.	0	4	0
		Architraves and Mouldings of all sorts, wholly or partly prepared, 3 inches and over ... „	0	7	0
		Boards—Flooring ... } Dressed or } „ Lining... } planed } per 100 ft. sup.	0	1	6
		„ Weather ... }			
		Doors not exceeding 1½ inch in thickness ... each	0	5	0
		„ over 1½ inch and not exceeding 1¾ inch in thickness „	0	7	6
		„ over 1¾ inch in thickness ... „	0	10	0
		Frames—Door, Window ... „	0	5	0
		Hardwood ... per 100 ft. sup.	0	2	0
		Laths ... per 1,000	0	5	0
		Palings ... per 100	0	0	9
		Pickets—Dressed ... „	0	6	6
		„ Undressed ... „	0	0	6
		Sashes—Window, Unglazed ... per pair	0	2	0
		„ „ Glazed... „	0	3	0
		Shingles ... per 1,000	0	0	9
		Skirtings, wholly or partly prepared ... per 100 ft. lin.	0	7	0
		Spokes and Felloes in the rough ... per 100	0	0	6
		Staves, Shaped or Dressed ... ad valorem	25	per cent.	
		Timber of Sizes less than 7 inches by 2½ inches per 100 ft. sup.	0	2	6
		Timber—Bent } ... ad valorem	25	per cent.	
		„ Finished } ...			
		„ cut into Shapes, for making into Cases, Boxes, or similar articles ... per cub. ft.	0	0	6
		Wickerware ... ad valorem	25	per cent.	
		Woodenware, including Beehives, Bellows, Picture-frames, and Wooden Hames, Turnery (except Billiard Balls in the rough), Staves shaped or dressed, and Finished Timber not otherwise enumerated (except Artists' Materials, Engravers' Boxwood, Shafts and Poles in the rough, Ash Oars) ... „			
26	Oils, packed in Bottles, Jars, or other vessels, not exceeding one gallon in size, as under:—				
		Quarts and over a pint ... per dozen	0	4	0
		Pints and over half-a-pint ... „	0	2	0
		Half-pints and smaller sizes ... „	0	1	0
		Over a quart and not exceeding a gallon ... „	0	12	0

IMPORT DUTIES—continued.

Order.	Articles Imported by Land or Sea.	Rate of Duty.		
		£	s.	d.
26	Oils, in Bulk (except Cocoanut, Fish of all sorts, Mineral Refined of which the point of ignition is below 80° Fahr., Kerosene, Palm, Lubricating of which the chief component part is mineral) per gallon	0	0	6
	Oil—Kerosene, up to 31st December, 1889 "	0	0	6
	Oil and Paste—Furniture ad valorem	20 per cent.		
		"		
28	Charcoal and coal (ground) "			
29	Bottles—Glass or Stone, containing a reputed quart, or any less quantity of spirits (not perfumed), Wine, Ale, Porter, or other Beer, and Bottles containing Aërated or Mineral Waters per dozen	0	0	6
	Bottles, containing Pickles "	0	0	3
	Brownware and Tiles ad valorem	20 per cent.		
	Chinaware and Porcelain (except Photographic, Scientific, and Telegraphic Materials), before 4th September, 1889 ..	10 per cent.		
	Ditto on and after ..	15 per cent.		
	Earthenware, including Packing (except Photographic, Scientific, and Telegraphic Materials), measuring outside the package as imported per cubic foot	0	0	8
	Glassware, including Packing (except Locket, Brooch, and Watch Glasses, and Optical, Surgical, and Scientific Instruments, and Photographic and Telegraphic Materials), viz.:—			
	Cut, Engraved, Etched, Frosted, Ground, Sandblast, and not otherwise enumerated, measuring outside the package as imported "	0	1	6
	Glass Bottles for Aërated Waters, measuring outside the package as imported, prior to 11th September, 1889 ..	0	1	0
	Ditto, on and after ..	0	0	6
	Glass Bottles for Medicines, measuring outside the package as imported, prior to 11th September, 1889 ..	0	0	4
	Ditto, on and after ..	0	0	6
	Other, measuring outside the package as imported, prior to 11th September, 1889 "	0	0	8
	Ditto, on and after ..	0	0	6
	Glass, viz.:—			
	Bent, over 6 inches square	} ad valorem		
	Bevelled, over 6 inches square			
	Heraldic			
	Silvered			
	Corners—Cut, Bevelled, or Engraved			
	Marble and Stone, Wrought (except Slate Slabs not wholly manufactured, Lithographic Stones, and Stones for Milling and Grinding purposes) "	"		
31	Gold and Silver Leaf			
	" Plates of per oz. troy	0	8	0
	Jewellery (except Cameos and Precious Stones unset), viz.:—			
	Rings of Gold, finished or unfinished, but without Cameos or Precious Stones set therein per dwt. troy	0	4	0

IMPORT DUTIES—*continued.*

Order.	Articles Imported by Land or Sea.	Rate of Duty.
		£ s. d.
31	Jewellery— <i>continued</i> — All other, whether manufactured wholly or in part, including Imitation Jewellery, also cases containing Jewellery or Imitation Jewellery and Pencil Cases ... ad valorem Silver, Plates of per oz. troy	20 per cent. 0 2 0
32	Barbed Wire, on and after 20th September, 1889... .. per ton Buckets and Tubs ad valorem Fillets—Line, for Book-binders Lead, Sheet and Piping per cwt. Metals, Manufactures of, and Machinery, not otherwise enumerated (except Portable Engines), on and after 18th September, 1889 ad valorem Nails, Iron and Steel (except for Trunks and Grindery), on and after 11th September, 1889 per cwt. Nails, Horse-shoe Metalware, Plated and Mixed (except Door Handles, Locks, Shaft Tips, Stump and Finger Joints, and Slot Irons used in carriage building, Harness Mountings, and Plated Harness) ad valorem Rolls—Ornamental, for Bookbinders Typeholders for Bookbinders	3 0 0 25 per cent. 10 per cent. 0 2 6 35 per cent. 0 5 0 0 12 0 20 per cent. 10 per cent. "
33	Live Stock, viz.:— Bulls, Cows, Calves over 6 months old, Heifers, Oxen, Steers (except Working Bullocks in teams) ... each Colts, Fillies, Geldings, Horses, Mares, not in saddle or harness Sheep, whether Rams, Ewes, Wethers, or Lambs Pigs	0 5 0 0 5 0 0 0 6 0 2 0
35	Brushware (except Artists' Brushes), on and after 4th Sep- tember, 1889 ad valorem Fancy Goods (except Artificial Flowers) Oilmen's Stores (except essential Oils and Essences not con- taining Alcohol), packed in Bottles or Jars not exceeding one reputed quart in size, or in Canisters or Vessels not exceeding one quart in size Oilmen's Stores, not otherwise enumerated (except Isinglass, uncut)	35 per cent. 10 per cent. 20 per cent. 10 per cent.

Exemptions.

Order.	Articles.	Order.	Articles.
3	Globes—School, mounted	9†	Agricultural Implements, known as
	Works of Art		Reapers and Binders
7	All Surgical Instruments or Appliances*		Centrifugal Cream Separators

* Provided that such Surgical Instruments or Appliances and Minor Articles are enumerated in any order of the Commissioner, and published in the *Government Gazette*. † See also Order 32.

IMPORT DUTIES—*continued.**Exemptions—continued.*

Order.	Articles.	Order.	Articles.
9*	†Dairy Refrigerators and Separators †Engines—Traction †Machines, not including the motive power, viz.:—Butter-Making, Eyelet, Knitting, Sheep-Shearing, Stitching	23	Spirits mixed with essential oils, so as to be unfit for human consumption to be used in the manufacture of soap, providing the mixture is performed in the presence of an officer of the Customs
10*	All Carriages and other Vehicles used in the conveyance of passengers or goods across the frontier which have been registered with the Officers of Customs nearest the place where such Carriage or Vehicle may ply or pass, and in such manner as the Commissioner may by any order from time to time approve All Minor Articles of mixed or undescribed materials used in the making up of Saddlery	24	Charcoal (Animal)—Ground †Leather, viz., Kid, Calf Kid, Mock Kid, and Patent Calf
11*	Ships' Fittings	25	Boxes—Cardboard, containing non-dutiable goods ordinarily imported therein Candle Nuts
13*	Furniture, second-hand, accompanying any passenger, which has been in such passenger's own use, up to £50 in value, which is not imported for sale	26	Oils in bulk, viz., Resin
14	†Matches—Wood, Safety	29	Syphon Bottles for Aërated Water
15	†Carpeting, being Printed Felt Wool Piece Goods, being Collar Check	32	Galvanized machine-made wire netting †Metals—Manufactures of, and Machinery, viz.:— Anchors Anvils Balances—spring, to weigh up to 3 cwt. Bands—Curtain Bar, not machined and in the rough Bell fittings Bells, 6 inches and under Bits (<i>for harness</i>) Blocks and Types—Printers' Blowers, for ventilating mines Boilers—Oval (Cast Iron) Brassfoundry used in the manufacture of Furniture Bushes—Patent Roller, for Block-making Buttons Caps—Percussion Cast Iron, being Oval Boilers, Camp Ovens, Digesters, Kettles; Brazing, Fry, Maslin, Preserving, Sauce, or Stew Pans; Danish, French, Glue, Oval, Plumbers', Stock, and Three-legged Pots; Tea Kitcheners or Fountains Chaffcutter Knives Chains " Curtain Cloth—Wire, over 36 mesh Concentrators—Frew's (<i>for mining purposes</i>)
19	All Minor Articles of mixed or undescribed materials used in the making up of— Apparel Boots and Shoes Hats Umbrellas, Parasols, or Sunshades †Gloves, other than Kid or Leather Slippers, of Straw only		
20	†Jute Piece Goods †Matting, except Coir and Jute		
22	Fruits—Green, viz.:—Bananas " " Guavas " " Mangoes " " Pine Apples Grain—Rice imported into any bonded warehouse and manufactured into starch therein Olives—Fresh		
23	†Coffee—Raw †Cocoa—Raw		

* See also Order 32.

† Exempted from 1st January, 1890.

‡ Exempted from 18th September, 1889.

IMPORT DUTIES—continued.

Exemptions—continued.

Order.	Articles.	Order.	Articles.
32	<p>*Metals—Manufactures of, and Machinery, viz.:—</p> <p>Conductors—Lightning</p> <p>Copper and Copperware, being Prepared plates for Engravers and Lithographers, Silver Plated Sheet, Perforated Sheet, Rivets, Washers</p> <p>Cornices in piece</p> <p>Crucibles</p> <p>Cutlery—Iron or Steel</p> <p>Detonators</p> <p>Digesters (Cast Iron)</p> <p>Door-fittings (except Handles and Plates)</p> <p>Firearms</p> <p>Fittings (See Bell, Door, Meters, Pipes, Tubes, Window)</p> <p>Fittings—Electric, viz., Arc Lamps without Globes, Carbons, Incandescent Lamps, Automatical Resistors, Transmitters, or Transformers, and Storage Batteries</p> <p>Fountains—Tea (Cast Iron)</p> <p>Furniture, Brassfoundry used in the manufacture of</p> <p>Hames</p> <p>Handles—Trunk</p> <p>Hinges, except Hook and Eye and T Hooks (Brass)</p> <p>Hooks—Cornice</p> <p>Hooks—Curtain</p> <p>Hoop, not machined and in the rough</p> <p>Iron—Angle and T</p> <p>Iron, Sheet—Corrugated</p> <p>Irons—Box and Sad</p> <p>Irons—Stirrup</p> <p>Kettles (Cast Iron)</p> <p>Kitcheners—Tea (Cast Iron)</p> <p>Knives—Chaffcutter</p> <p>Knives—Reaping Machine</p> <p>Latches</p> <p>Locks</p> <p>Lightning Conductors</p> <p>Machinery for Carding, Spinning, Weaving, and Finishing the manufacture of fibrous material, and Cards for such Machinery</p> <p>Machinery for Telegraph purposes</p>	32	<p>*Metals—Manufactures of, and Machinery, viz.:—</p> <p>Machinery used in the manufacture of Paper and for Felting, including Wire-cloth and Felts</p> <p>Machines, viz., Button Making, Eyelet, Knitting, Sheep-shearing, Stitching, Dairy Refrigerators and Separators, on and after 1st January, 1890</p> <p>Machines—Printing</p> <p>Machines—Sewing</p> <p>Machines known as Centrifugal Cream Separators</p> <p>NOTE.—Exemption of Machines does not apply to the motive power thereof (if any)</p> <p>Meters—Gas, Internal Fittings of, when imported in parts not put together</p> <p>Mortars and Pestles</p> <p>Netting—Wire, Galvanized, Machine-made</p> <p>Ovens—Camp (Cast Iron)</p> <p>Pans (Cast Iron), viz.—Brazing, Fry, Maslin, Preserving, Sauce, Stew</p> <p>Pestles and Mortars</p> <p>Pig</p> <p>Pins—Gimp</p> <p>Pipes and Tubes, viz., Brass-cased, Brazed Copper, Solid-drawn, Welded, and Fittings for same, except the Cocks</p> <p>Plate, not machined and in the rough</p> <p>Plates (Copper), prepared for Engravers and Lithographers</p> <p>Plates—Decorated Tin, for manufacturing Tinware</p> <p>Pots (Cast Iron), viz., Danish, French, Glue, Oval, Plumbers', Stock, Three-legged</p> <p>Presses—Printing</p> <p>Primers</p> <p>Pulleys, under 4 inches</p> <p>Rails—Tram and Railway</p> <p>Reaping Machine Knives</p> <p>Rings—Curtain</p> <p>Rivets (Copper)</p> <p>Rod, not machined and in the rough</p> <p>Scales, to weigh up to 3 cwt.</p>

* Exempted from 18th September, 1889.

IMPORT DUTIES—continued.
Exemptions—continued.

Order.	Articles.	Order.	Articles.
32	*Metals—Manufactures of, and Machinery, viz.:— Saws of all kinds, but not the Machinery connected therewith Scrap Screws—Cork, Galvanized, Hand, Table, Wood Sheet, not machined and in the rough Sheet (Copper) Silver Plated Sheet (Copper) perforated Slides—Cornice Spokes, not machined and in the rough Spoons—Iron or Steel Springs—Buffer Steelyards, to weigh up to 3 cwt. Tacks, 1 inch and under Tires of Steel, in the rough Tools of Trade, not being Machinery, (except Napping, Spalling, and Quartz Hammers, Picks, Mattocks, Gas and Blacksmiths' Tongs, Crowbars, Mauls, Wedges, Soldering Irons)	32	Traps—Vermin Tubes and Pipes, viz.— Brass-cased, Brazed Copper, Solid-drawn Welded, and Fittings for same, except the Cocks Types—Printers' and Brass Washers (Copper) Window Fittings (except Shutters, Blinds, Poles, and Cornices) Wire, not machined and in the rough
		36	†Asphyxiators for Rabbit Killing Goods, Wares and Merchandise for the supply of Her Majesty's land or sea forces, or for the use of Her Majesty's Government All packages in which goods are ordinarily imported, not otherwise enumerated. All packages, second-hand, in which ships' stores have been imported. Passengers' luggage, being cabin furniture and personal luggage

EXPORT DUTIES.

Order.	Article.	Rate of Duty.
32	Scrap iron per ton	£ s. d. 3 0 0

EXCISE.

Order.	Articles.	Rate of Duty.
23	Spirits distilled in Victoria— From malt, grain, roots, grapes, or wine per gallon† From sugar, treacle, or molasses, or from wort wash or spent wash with which sugar, treacle or molasses has been made or mixed, or from beer or ale Tobacco } Manufactured in any tobacco factory, Snuff } on being entered for home consumption Cigars and Cigarettes } tion per lb.	£ s. d. 0 8 0 0 10 0 0 1 0§

* Exempted from 18th September, 1889. † Exempted from 1st January, 1890.
† Such duties on spirits respectively shall be paid on the gallon standard measure of spirits of the strength of proof by Sykes' hydrometer, and so in proportion for any greater or less strength than proof.
§ To be reduced to 6d. on and after 1st January, 1890.

TARIFF OF NEW SOUTH WALES.

(Corrected to 14th October, 1889.)

IMPORT DUTIES.

For the position of any article, *see* Index.

Order.	Articles.						Rate of Duty.		
							£	s.	d.
8	Dynamite and Lithofracteur	...	...	...	...	per lb.	0	0	1
	Powder :—								
	Sporting	...	...	...	...	"	0	0	3
	Blasting	...	...	...	...	"	0	0	1
	Shot	...	...	...	...	per cwt.	0	5	0
12	Cement	...	...	...	...	per barrel	0	2	0
	Doors—Wood, not otherwise charged	...	...	...	...	each	0	2	0
	Sashes	...	...	...	...	"	0	2	0
	Shutters (wood)	...	...	...	...	"	0	2	0
	Naphtha and Gasoline	...	...	...	...	per gallon	0	0	6
	Opium, and any preparation or solution thereof, not imported for use as a known medicine	...	...	...	...	per lb.	1	0	0
	Paints and Colours, ground in oil	...	...	...	...	per cwt.	0	3	0
21	Butter	...	...	...	...	per lb.	0	0	1
	Cheese	...	...	...	...	"	0	0	2
	Fish—Dried, preserved, or salt	...	...	...	...	"	0	0	1
	Bacon	...	...	...	...	"	0	0	2
	Ham	...	...	...	...	"	0	0	2
	Biscuits—Other than Ship	...	...	...	...	"	0	0	1
	Confectionery, including Cakes, Comfits, Liquorice, Liquorice Paste, Lozenges of all kinds, Cocoonut in Sugar, Sugar Candy, Succades, and Sweetmeats	...	...	...	...	"	0	0	2
	Corn Flour and Maizena	...	...	...	...	"	0	0	1
22	Fruits, boiled or in pulp, or partially preserved other than by sulphurous acid	...	...	...	...	"	0	0	1
	Fruits, candied and dried (exclusive of Dates)	...	...	...	...	"	0	0	2
	Glucose, liquid and syrup	...	...	...	...	per cwt.	0	3	4
	" solid	...	...	...	...	"	0	5	0
	Rice	...	...	...	...	per ton	3	0	0
	Jams	...	...	...	...	per lb.*	0	0	1
	Preserves, Jellies, and Fruits boiled in pulp or partially preserved other than by sulphurous acid	...	...	...	...	"	0	0	1
	Maizena	...	...	...	...	"	0	0	1
	Sago	...	...	...	...	"	0	0	1
	Sugar—Refined	...	...	...	...	per cwt.	0	6	8
	" Raw	...	...	...	...	"	0	5	0
	" Molasses and Treacle	...	...	...	...	"	0	3	4
	Tapioca and Semolina	...	...	...	...	per lb.	0	0	1
23	Ale, Beer, Porter, Spruce or other Beer, Cider and Perry :—								
	In wood or jar	...	...	...	...	per gallon	0	0	6
	In bottle	...	...	...	...	"†	0	0	9

* Or reputed package of that weight, and so in proportion for any such reputed weight.

† Or for six reputed quart, or twelve reputed pint bottles.

IMPORT DUTIES—continued.

For the position of any article, see Index.

Order.	Articles.	Rate of Duty.		
		£	s.	d.
23	Bitters—if containing not more than 25 per cent. of proof spirit per gallon	0	4	0
	„ if containing more than 25 per cent. of proof spirit „	0	14	0
	Chicory, Dandelion, and Taraxacum :—			
	Raw or kiln-dried per lb.	0	0	3
	Roasted, ground, or mixed with any other articles ... „	0	0	6
	Chocolate—Plain, or mixed with any other article and Chocolate Creams „	0	0	4
	Cocoa—Raw, without allowance for husks or shells ... „	0	0	3
	„ Prepared paste or mixed with any other article ... „	0	0	4
	Coffee—Raw „	0	0	3
	„ Roasted, ground, or mixed with any other article ... „	0	0	6
	Essences—Flavouring and Fruit—			
	Containing not more than 25 per cent. of proof spirit ... per gallon	0	4	0
	„ more than 25 per cent. of proof spirit ... „	0	14	0
	Milk—Condensed or preserved per lb.	0	0	1
	Salt per ton	1	0	0
	Sarsaparilla—			
	If containing not more than 25 per cent. of proof spirit per gallon	0	4	0
	„ more than 25 per cent. of proof spirit ... „	0	14	0
	*Spirits—Of all kinds, the strength of which can be ascertained by Sykes' hydrometer ... per proof gallon†	0	14	0
	„ and Spirituous Compounds, the strength of which cannot be ascertained by Sykes' hydrometer per liquid gallon	0	14	0
	„ Methylated per gallon	0	4	0
	„ perfumed, perfumed water, florida water, and bay rum per liquid gallon	0	15	0
	Tea per lb.	0	0	3
	Tobacco—Manufactured, unmanufactured, and Snuff ... „	0	3	0
	„ Unmanufactured, entered to be manufactured in the colony, entered for removal to any licensed tobacco manufactory for manufacturing purposes only into tobacco, cigars, or cigarettes ... „	0	1	0
	„ Sheepwash „	0	0	3
	„ Cigars, and cigarettes (including wrappers) ... „	0	6	0
24	Wines—			
	Sparkling—for six reputed quarts or twelve reputed pints ...	0	10	0
	Other kinds per gallon‡	0	5	0
	Candles per lb. §	0	0	1
	Stearine „	0	0	1
	Timber (other than Laths, Building Shingles, Dyewoods, Palings undressed, Sandalwood, Staves and Casks in shooks) :—			
	Dressed per 100ft. super.	0	3	0
	Rough and undressed „	0	1	6
	Door Sashes, and Shutters each	0	2	0

* Case spirits—Reputed contents of 2, 3, or 4 gallons shall be charged—
Two gallons and under, as two gallons.
Over two gallons and not exceeding three, as three gallons.
„ three „ four, as four „

† No allowance beyond 16·5 shall be made for the under-proof of any spirits of a less hydrometer strength than 16·5 under proof.

‡ See footnote (†) on page 533.

§ Or reputed package of that weight, and so in proportion for any such reputed weight.

IMPORT DUTIES—*continued*.

For the position of any article, *see* Index.

Order.	Articles.	Rate of Duty.
		£ s. d.
24	Varnish and Lithographic Varnishes per gallon	0 2 0
26	Oils (except black, cocoanut, sperm, and palm) "	0 0 6
	„ in bottle—reputed quarts per dozen	0 1 6
	„ „ „ pints "	0 0 9
	„ „ „ half-pints and smaller sizes "	0 0 6
32	Iron—Galvanized in bars, sheets, or corrugated per ton	2 0 0
	„ galvanized manufactures (except anchors) "	3 0 0
	„ and steel wire "	1 0 0

EXCISE.

Order.	Articles.	Rate of Duty.
		£ s. d.
23	*Beer per gallon	0 0 3
	Spirit—Colonial distilled per proof gallon	0 14 0
	Tobacco—Manufactured or cut per lb.	0 1 3
	„ Cigars and cigarettes "	0 2 6

TARIFF OF QUEENSLAND.

(Corrected to 26th August, 1889.)

IMPORT DUTIES.

For the position of any article, *see* Index.

Order.	Articles.	Rate of Duty.
		£ s. d.
8	Gunpowder per lb.	0 0 1
	Shot "	0 0 1
10	Carriage Shafts, Spokes, Felloes, Naves, Hubs, and Bent-wheel Rims ad valorem	5 per cent.
12	Cement per barrel	0 2 0
	Doors—Wood each	0 4 0
	Sashes per pair	0 4 0
13	Furniture Springs ad valorem	5 per cent.

* Includes ale, porter, and every other malt liquor or fermented beverage purporting to be beer, or made in imitation of beer or malt liquor, and whether brewed wholly or in part from any other substance than malt.

IMPORT DUTIES—continued.

For the position of any article, see Index.

Order.	Articles.						Rate of Duty.		
							£	s.	d.
14	Acid—Acetic	...	...	...	...	per lb.	0	0	3
	„ Sulphuric	...	...	...	...	per cwt.	0	2	6
	Lead—Red and White	...	...	...	...	„	0	3	0
	Opium	...	...	...	...	per lb.	1	0	0
	Paints (wet and dry)	...	...	...	...	per cwt.	0	3	0
	Sarsaparilla (<i>see</i> Order 23)								
	Soda—Bi-carbonate	...	...	...	...	„	0	1	0
	„ Caustic	...	...	...	...	„	0	1	6
	„ Crystals	...	...	...	...	„	0	2	0
	„ Nitrate	...	...	...	...	ad valorem	5 per cent.		
	Spirits—Methylated (Foreign)	...	...	...	...	per gallon	0	5	0
	Sulphur	...	...	...	...	ad valorem	5 per cent.		
	Turpentine	...	...	...	...	per gallon	0	0	6
	15 Alpaca Cloth, with border	...	...	...	...	ad valorem	5 per cent.		
16	Flannel—Crimean, in the piece	...	...	...	...	„	„
	16 Silk Mixtures—Reversible and Levantine, of not less than 44 inches in width	...	...	...	...	„	„
17	Cotton Piece Goods, Shirtings, and all Calicoes, Prints, Muslins, Sheetings, and Cotton Ticks	...	...	...	...	„	„
	Linen Piece Goods, Ducks, Diapers, Rough Brown and Dressed Hollands, Tabling, Sheeting, and Damask Ticks	...	...	...	...	„	„
	Moleskin, in the piece	...	...	...	...	„	„
	Union Ticks, in the piece	...	...	...	...	„	„
	19 Boots and Shoes, except Indiarubber Shoes (present English sizes to be the standard), viz.:—								
	Men's, No. 6 and upwards	...	...	...	...	per doz. pairs	1	2	0
20	Youths', Nos. 2-5	...	...	...	...	„	0	14	0
	Boys', Nos. 7-1	...	...	...	...	„	0	12	0
	Women's, No. 3 and upwards (except Lasting and Stuff Boots), including Goloshed Boots	...	...	...	...	„	0	13	0
	Girls', Nos. 11-2 (except Lasting and Stuff Boots), including Goloshed Boots	...	...	...	...	„	0	11	0
	Girls', Nos. 7-10 (except Lasting and Stuff Boots), including Goloshed Boots	...	...	...	...	„	0	8	0
	Bagging	...	...	...	...	ad valorem	5 per cent.		
	Bunting, in the piece...	...	...	...	...	„	„
	Cordage and Rope	...	...	...	...	per cwt.	0	8	0
	Twine	...	...	...	...	per lb.	0	0	1½
	Wool—Bagging	...	...	...	...	ad valorem	5 per cent.		
21	Zanella Cloth, with border	...	...	...	...	„	„
	Butter	...	...	...	...	per lb.	0	0	3
	Butterine and other similar products	...	...	...	...	„	0	0	4
	Cheese	...	...	...	...	„	0	0	3
	Fish—Pickled or Salted, in casks	...	...	...	...	per cwt.	0	5	0
	„ Dried	...	...	...	...	„	0	5	0
	„ Preserved (not salted)	...	...	...	...	per doz. reputed lbs. *	0	2	0
	Honey	...	...	...	...	per lb.	0	0	3
	Lard	...	...	...	...	„	0	0	1½
	Meats—Bacon and Hams	...	...	...	...	„	0	0	3
	„ Beef (salted)	...	...	...	...	„	0	0	1

* And in the same proportion for larger or smaller contents.

IMPORT DUTIES—*continued.*For the position of any article, *see* Index.

Order.	Articles.				Rate of Duty.		
					£	s.	d.
21	Meats—Extract of	...	...	... per doz. reputed lbs. *	0	4	0
	„ Pork (not including mess pork)	...	...	... per lb.	0	0	2
	„ „ Mess	...	...	...	0	0	1
	„ Preserved (not salted)	...	...	... per doz. reputed lbs. *	0	4	0
22	Arrowroot	...	...	... per lb.	0	0	1
	Biscuits	...	...	...	0	0	2
	Cakes	...	...	...	0	0	2
	Chocolate Confectionery	...	...	...	0	0	4
	Confectionery and Succades	...	...	...	0	0	4
	Flour—Corn	...	...	...	0	0	2
	Fruits—Dried	...	...	...	0	0	2
	„ Bottled, or in tins or jars	...	...	per doz. reputed pints *	0	1	6
	„ Pulp, and Fruit prepared by acids	...	...	... per cwt.	0	5	0
	Grain and Pulse—Barley	...	...	... per bushel	0	0	9
	„ „ Malting	...	...	...	0	1	6
	„ Beans and Peas	...	...	...	0	1	0
	„ Maize	...	...	...	0	0	8
	„ Malt	...	...	...	0	3	0
	„ Oats	...	...	...	0	0	8
	„ Pearl Barley	...	...	... per lb.	0	0	1
	„ Peas (split)	...	...	...	0	0	1
	„ Rice	...	...	...	0	0	1
	Jams and Jellies	...	...	... per doz. reputed lbs. *	0	2	0
	Macaroni	...	...	... per lb.	0	0	2
	Maize-meal	...	...	...	0	0	2
	Maizena	...	...	...	0	0	2
	Nuts (except Cocoanuts)	...	...	...	0	0	3
	Oatmeal	...	...	... per cwt.	0	4	0
	Onions	...	...	... per ton	1	0	0
	Peel (dry and drained)	...	...	... per lb.	0	0	2
	Potatoes	...	...	... per ton	0	15	0
	Sago	...	...	... per lb.	0	0	1
	Sugar—Raw	...	...	... per cwt.	0	5	0
	„ Refined	...	...	...	0	6	8
	„ Molasses	...	...	...	0	5	0
	„ Glucose	...	...	...	0	10	0
	Tapioca	...	...	... per lb.	0	0	1
	Vermicelli	...	...	...	0	0	2
23	Beer, in bottle	for 6 reputed quart	or for 12 reputed pint bottles		0	1	0
	„ in wood	...	... per gallon		0	0	9
	Chicory	...	... per lb.		0	0	6
	„ Root (kiln dried)	...	...		0	0	3
	Cider and Perry, in bottle	for 6 reputed qt.	or for 12 reputed pt. bottles		0	1	0
	„ „ in wood	...	... per gallon		0	0	9
	Cocoa and Chocolate	...	... per lb.		0	0	4
	Coffee, roasted	...	...		0	0	6
	„ raw	...	...		0	0	4
	Cordials	...	... per gallon		0	12	0
	Ginger, preserved and dried	...	... per lb.		0	0	4
	Hops	...	...		0	0	6

* And in the same proportion for larger or smaller contents.

IMPORT DUTIES—*continued.*For the position of any article, *see* Index.

Order.	Articles.						Rate of Duty.		
							£	s.	d.
23	Milk, condensed	...	...	...	...	per reputed lb.	0	0	2
	Mustard	...	...	...	...	per lb.	0	0	3
	Pepper	...	...	...	...	...	0	0	3
	Pickles	...	...	...	...	per dozen reputed pints*	0	1	6
	Saltpetre	...	...	...	...	per cwt.	0	4	0
	Sarsaparilla and Bitters, if containing not more than 25 per								
					cent. of proof spirit	per gallon	0	6	0
					if containing more than 25 per cent.				
					of proof spirit	...	0	12	0
	Sauces	...	...	...	...	per dozen reputed pints*	0	1	6
	Spices	...	...	...	...	per lb.	0	0	3
	Spirits†—Brandy	...	...	...	...	per gallon	0	12	0
	„ Geneva	...	...	...	...	„	0	12	0
	„ Methylated (<i>see</i> Order 14).	...	...	...	...	„
	„ Old Tom	...	...	...	...	„	0	12	0
	„ Rum (foreign)	...	...	...	...	„	0	12	0
	„ Whisky	...	...	...	...	„	0	12	0
	„ Perfumed	...	...	...	...	„	1	0	0
	„ All other	...	...	...	...	„	0	12	0
	Tea	...	...	...	...	per lb.	0	0	6
	Tobacco—Manufactured	...	...	...	...	„	0	3	0
	„ Unmanufactured	...	...	...	...	„	0	1	6
	„ Cigars	...	...	...	...	„	0	6	0
	„ Cigarettes	...	...	...	...	„	0	6	0
	„ Snuff	...	...	...	...	„	0	5	0
24	Vinegar, in bottle	...	...	...	...	per gallon	0	1	0
	„ in wood	...	...	...	...	„	0	0	9
	Wine—Sparkling	...	...	...	...	„	0	10	0
	„ Other	...	...	...	...	„	0	6	0
	Candles	...	...	...	...	per lb.	0	0	2
25	Flock	...	...	...	...	ad valorem	5	per cent.	
	Glue	...	...	...	...	per lb.	0	0	2
	Leather, not otherwise enumerated	...	...	...	...	„	0	0	4
	Soap	...	...	...	...	per cwt.	0	10	0
	Stearine	...	...	...	...	per lb.	0	0	1½
	Tallow	...	...	...	...	„	0	0	1½
	Blue	...	...	...	...	„	0	0	2
	Bran and Pollard	...	...	...	...	per bushel	0	0	4
	Chaff	...	...	...	...	per ton	0	15	0
	Cork	...	...	...	...	ad valorem	5	per cent.	
	Elastic	...	...	...	...	„
	Hay	...	...	...	...	per ton	0	15	0
	Linseed	...	...	...	...	ad valorem	5	per cent.	
	Paper—Bags, not printed	...	...	...	...	per cwt.	0	5	0
	„ „ printed	...	...	...	...	„	0	7	6
	„ Writing, cut...	...	...	...	...	per lb.	0	0	2
	„ not otherwise enumerated	...	...	...	...	ad valorem	5	per cent.	

* And in the same proportion for larger or smaller contents.

† Spirits in case.—Reputed contents of two, three, or four gallons shall be charged on and after the first day of March, 1889, as follows:—Two gallons and under, as two gallons; and not exceeding three, as three gallons; over three and not exceeding four, as four gallons.

IMPORT DUTIES—*continued.*For the position of any article, *see* Index.

Order.	Articles.	Rate of Duty.
25	Resin per cwt.	£ s. d. 0 1 0
	Seed—Castor Oil ad valorem	5 per cent.
	Starch per lb.	0 0 1
	Timber—Ash, in plank ad valorem	5 per cent.
	„ American Oak, for Staves „	„
	„ *Dressed and Sawn, of a scantling under 96 square inches per 100 super. feet	0 3 0
	„ Undressed, of a scantling 96 square inches and over „	0 1 6
	„ Logs „	0 1 6
26	Oil—Castor, in bottle per dozen reputed pints†	0 2 0
	„ „ in bulk per gallon	0 1 0
	„ Chinese, in bulk „	0 1 0
	„ Cod Liver, in bottle per dozen reputed pints†	0 2 0
	„ „ in bulk per gallon	0 1 0
	„ Colza, in bulk „	0 1 0
	„ Linseed and other vegetable, in bulk „	0 1 0
	„ Mineral, and all other not otherwise enumerated (except perfumed oils) „	0 0 6
	„ Neatsfoot, in bulk „	0 1 0
	„ Salad in bottle per dozen reputed pints†	0 2 0
28	Coal per ton	0 2 0
29	Whiting „	0 7 6
31	Jewellery ad valorem	25 per cent.
	Plate—Gold and Silver „	„
32	Iron Castings, for building purposes, and malleable iron castings per cwt.	0 3 0
	Iron—Corrugated „	0 2 0
	„ Galvanized „	0 2 0
	„ Tanks each	0 8 0
	„ Wire per cwt.	0 2 0
	Lead—Pig, Piping, and Sheet „	0 2 0
	Nails „	0 3 0

DUTIES ON UNSPECIFIED ARTICLES.

Upon all Goods, Wares, and Merchandise imported into Queensland other than those mentioned in the foregoing schedule or in the following List of Exemptions ... ad valorem 15 per cent.

Exemptions.

Order.	Articles.	Order.	Articles.
1	Books—Printed, except for advertising purposes Newspapers—Printed	3	Charts Globes Maps

* The duty on timber to be estimated as of a thickness of one inch and to be in proportion for any greater thickness. Any thickness under one inch to be reckoned as one inch.

† And in the same proportion for larger or smaller contents.

IMPORT DUTIES—*continued.**Exemptions—continued.*For the position of any article, *see* Index.

Order.	Articles.	Order.	Articles.
6	Machinery for Telegraphic purposes	9	Tools, viz.— <i>continued</i> :—
8	Dynamite, Gelatine Dynamite, Litho- fracteur, Blasting Powder, Fuse, Detonators, and other Explosives, except Gunpowder		Chisels and Gouges
9	Boiler Plates		Choppers and Cleavers—Butchers'
	Boiler Tubes		Compasses—Dividers
	Cream Separators		„ Carpenters' and Coopers'
	Fire Engines		Diamonds—Glaziers'
	Machinery for Carding, Spinning, Weaving, and finishing the manu- facture of Fibrous Material and Cards for such Machinery		Files and Rasps
	Machinery—Dry Air, for Refrigerating without Engine		Forks—Digging, Hay, and Stable
	Machinery used in the manufacture of Paper and Felting		Grindery Tools—Edge-planes, Kit, Peg, Shaves, and Welt-trimmers
	Machinery, Engines—Gas		Hoes—Garden and Plantation
	„ „ Portable		Knives—Butchers', Hay, Pruning, Putty, Saddlers', Shoemakers' and Cane
	„ „ Traction and Steam Ploughs		Needles of all sorts
	„ Centrifugals—Multiple Effets		Palms—Leather
	„ Sewing Machines		Planes and Plane-irons
	„ Freezing Machines, not including Engine-power		Rules, Tapes, and Chains (measur- ing)
	„ Planing Machines and Machines for Joinery, Hot-air Machinery for Drying Timber, Hy- draulic Hat-moulds, Knitting Machines, Printing Machines and Presses, but not the motive power (if any) for same		Saws of all kinds, but not the machi- nery (if any) connected therewith
	Patent Porcelain or Steel Roller for Flour Mills		Scissors and Scrapers (ship)
	Tools, viz.:—		Scythes and Scythe-handles
	Adzes		Shears—Garden, Hedge, Sheep, Tailors', and Tinmen's
	Anvils		Shovels—Iron or Wood
	Augers, Screw and Shell and Auger Bits		Sickles and Spades
	Awls, Awl Pads, and Hats		Spokeshaves, Shaves, and Spoke Trimmers
	Axes, Hatches, and Tomahawks		Squares
	Bevels and Blowpipes		Squeezers (cork)
	Braces and Bits, and Breast Drills		Steels—Butchers'
	Bruzzes for Wheelwrights		Stocks and Dies, and taps for same
	Bung-borers		Saddlers' Tools, viz., Rein Rounders, Claw, Carving, French Edge, Patent Leather Tools, Wheels, and Rosette Cutters
	Brushes—Patent Roller, for Block- making		Trowels
			Vyces and Patent Saw Vyces
		10	Carriage and Cartmakers' Materials, viz., Spring Steel, Brass Hinges, Bolts and Nuts, Tacks, Tire Bolts, Shackle-holders, Rubber Cloth, and American Cloth
			Saddle Trees
			Saddlers' Ironmongery, such as Hames and Mounts for Harness, Straining, Surcingle Brace, Girth and Roller Webs, Collar Check, Saddle Serge
		14	Dye
			Ink—Printing

IMPORT DUTIES—continued.

Exemptions—continued.

For the position of any article, see Index.

Order.	Articles.	Order.	Articles.
14	Ink and Colours—Lithographic Manure—Guano Matches—Safety Soda—Ash	25	Paper—Hand-made or Machine-made, Book or Writing, of sizes not less than the size known as "Demy" when in original wrappers, and with uncut edges, as it leaves the mill Phormium tenax Rattans Screws—Wood Willows
17	Cloth for Bookbinders	29	Lithographic Stones
18	Buckles of every description Buttons, Braids, Tapes, Waddings, Pins, Needles, and such minor articles required in the making up of Apparel, Boots, Shoes, Hats, Caps, Saddlery, Upholstery, Carriage, and other Vehicles, Umbrellas, Parasols, and Sunshades, as may be enumerated in any order of the Treasurer, and published in the <i>Government Gazette</i> Hatmakers' Materials, viz., Felt Hoods, Shellac, Galloons, Spale Boards for Hat Boxes Staymakers' Binding, Eyelet-holes, Corset-fasteners, Jean, Lasting, and Cotell Tailors' Trimmings, viz., French Canvas, Buckram, Wadding, Padding, Silk Worsted and Cotton Bindings and Braids, and Stay-binding Umbrella-makers' Materials, viz., Sticks, Runners, Notches, Caps, Ferrules, Cups, Ribs, Stretchers, Tips, and Rings, for use in the making of Umbrellas, Parasols, and Sunshades	31	Gold—Unmanufactured Specie—Gold, Silver, and Bronze Silver—Unmanufactured
19	Plaits—Straw, Palm-leaf, and Tuscan	32	Copper—Sheet, Plain Diving Pumps and Dresses Iron—Bar „ Hoop „ Ore „ Pig „ Rod, from $\frac{3}{16}$ ths to $\frac{1}{2}$ -inch; Channel Iron, Angle and T Iron, Rolled Iron Joists up to 10 inches by 5 inches „ Scrap „ Sheet—Plain (not including galvanized) Malleable Iron and Copper Piping Metal—Fittings for Portmanteaus, Travelling Bags, and Leggings „ Frames for Bags and Satchels „ Muntz Quicksilver Screws—Bench, Brass, Coach, Gal- vanized Hand and Table Steel—Unwrought, Sheet, Bar, Angle, and T „ Rails Tin—Plates Tubing for Artesian Wells Type Zinc
22	Cocoanuts Flour Fruit—Green (in cases) Grain—Wheat	33	Animals, alive Specimens of Natural History
23	Salt	34	Bulbs—Garden Seeds—Garden Shrubs „ Trees „
24	Leather—Patent, Enamelled, Kid, Hog- skins, Levant, Morocco, and Imita- tions thereof Leather for Bookbinders	35	Outside Packages, in which goods are ordinarily imported, and which are of no commercial value except as covering for goods
25	Bark—Long (in bundles) Canes Fibre-Cocoanut Flax Hemp Millboard, Pasteboard, and Strawboard		

IMPORT DUTIES—continued.

Exemptions—continued.

For the position of any article, see Index.

Order.	Articles.	Order.	Articles.
36	Articles and Materials (as may from time to time be specified by the Treasurer) which are suited only for, and are to be used and applied solely in, the fabrication of goods within the colony. All decisions of the Treasurer in reference to articles so admitted free to be published from time to time in the <i>Government Gazette</i> Curiosities (antique) Naval and Military Stores, imported for the service of the Colonial Governments, or for the use of Her Majesty's Land or Sea Forces	36	Passengers' Cabin Furniture and Baggage, and Passengers' Personal Effects (not including vehicles, musical instruments, glassware, china-ware, silver and gold plate and plated goods, and furniture other than cabin furniture), which are imported with and by passengers <i>bond fide</i> for their own personal use, and not imported for the purpose of sale

EXPORT DUTY.

£ s. d.

Order 25.—Timber—Cedar, in the log ... per 100 sup. ft. 0 2 0

EXCISE.

Order 23.—Spirits—Methylated, Colonial ... per gallon 0 2 0
 „ Rum, „ „ 0 10 0

TARIFF OF SOUTH AUSTRALIA.

(Corrected to the 21st August, 1889.)

IMPORT DUTIES.

For the position of any article, see Index.

Order.	Articles.	Rate of Duty.
		£ s. d.
1	Albums ... ad valorem	25 per cent.
	Cards—Playing ... per dozen packs	0 6 0
	Stationery, Manufactured—Labels, Posting and Handbills, and Printed Bags, not enumerated ... ad valorem	25 per cent.
	„ Paper Bags, printed ... per cwt.	0 15 0
2	Harmoniums and Pianofortes, Organs other than pipe ... ad valorem	15 per cent.
	Organs, pipe ... „	25 per cent.
4	Mouldings, Gold ... „	„
	Tobacconistware ... „	15 per cent.

IMPORT DUTIES—continued.

For the position of any article, see Index.

Order.	Articles.	Rate of Duty.
		£ s. d.
5	Archery Materials ad valorem	25 per cent.
	Cricketware "	15 per cent.
	Dumb Bells "	25 per cent.
	Fireworks "	20 per cent.
6	Clocks and Watches, or parts thereof "	15 per cent.
	Eyeglasses and Spectacles, gold and silver "	"
8	Gunpowder, Sporting per lb.	0 0 3
	Shot per cwt.	0 2 6
9*	Agricultural Implements, not enumerated ad valorem	15 per cent.
	Beer Engines "	25 per cent.
	Bellows, and Bellows with Forges "	"
	Bench Screws "	"
	Blacksmiths' Tongs "	"
	Boilers (Land and Marine) "	"
	Bread-cutters "	"
	Brooms and Brushware "	"
	Carpenters' and Joiners' Benches "	"
	Cast Steel Drills "	"
	Chisels, Cold "	"
	Corkscrews, Wire and Steel "	"
	Copy and Embossing Presses "	"
	Corn Crushers "	15 per cent.
	Engines and Parts (except Gas, Portable, and Traction Engines and Pressure Gauges) "	25 per cent.
	Garden Rollers "	"
	Gas Tongs "	"
	Hammers (Napping, Quartz, and Spalling) "	"
	Hay-presses "	20 per cent.
	Hoists and Lifts "	25 per cent.
	Horse Powers, and Parts "	"
	Hydraulic Presses "	"
	Icemaking and Cooling Machines (Refrigerators) "	"
	Jacks, Lifting "	"
	Knifeboards and Knifecleaners "	"
	Ladles, Iron "	"
	Machines, Washing, and Mangles "	"
	Machinery, not enumerated "	20 per cent.
	Mandrels "	25 per cent.
	Picks and Mattocks "	"
	Pliers "	"
	Punching Machinery "	"
	Quarry Mauls and Picks "	"
	Sieves "	"
	Wedges "	"
	Weighbridges over 20 cwt. "	"
	Winepresses "	"
	Winches "	"
	Windmills "	"
	Woolpresses "	"
	Woolscourers "	"

* See also Orders 25 and 32 post.

IMPORT DUTIES—*continued.*For the position of any article, *see* Index.

Order.	Articles.	Rate of Duty.		
		£	s.	d.
9	Wringers ad valorem	25	per cent.	
10	Carriages—			
	Tilburys, Dogcarts, Gigs, Boston Chaises, and other two-wheeled vehicles, on springs or thorough braces ... each	10	0	0
	Express Waggon and Waggon for carrying goods, and single and double seated Waggon, and four-wheeled Buggies without tops, mounted on springs or thorough braces "	15	0	0
	Hansom Cabs, Safety, single and double seated Waggon and Waggonettes, and four-wheeled Buggies with tops "	20	0	0
	Omnibuses and Coaches, for carrying mails or passengers "	40	0	0
	Barouches, Broughams, Mail Phaetons, Drays "	50	0	0
	Carriages, Carts, Waggon, and all Vehicles not enumerated ad valorem	25	per cent.	
	Buggy Hoods, wholly or partly manufactured "			
	Felloes "			
	Harness and Saddlery, made up "			
	Saddle and Harness Trees "			
	Wheels and Axles "			
	Whips "			
11*	Blocks, Pulleys, and Sheaves "			
	Cork and other Ship Fenders "			
	Oars "			
	Sails (new) "			
	Air Bricks "			
12	Architraves, Mouldings, 3 inches and under ... per 100 lin. feet	0	4	0
	" " over 3 inches "	0	7	0
	Skirtings "			
	Bricks (except Bath and Dinas) ad valorem	25	per cent.	
	Cement per barrel	0	2	0
	Doors (except iron doors), 1½ in. and under ... each	0	5	0
	" " over 1½ in. and under 1¾ in. "	0	7	6
	" " 1¾ in. and over "	0	10	0
	Sashes, up to and including 1¼ inches ... per pair	0	4	0
	" over 1¼ inches "	0	6	0
13	Furniture ad valorem	25	per cent.	
	Gasaliers, and parts "			
	Lamps, and Lampware "	15	per cent.	
	Mantelpieces "	25	per cent.	
14	Acid—			
	Acetic containing not more than 33 per cent. of acidity... per lb. or pt.	0	0	3
	Every extra 10 per cent. or part of 10 per cent. acidity "	0	0	1
	Muriatic per cwt.	}	0	5
	Nitric "			
	Sulphuric "			
	Alkali—Soda Crystals per ton	2	0	0
	Blacking (including Boot Gloss, Harness Dressing, and Black Lead) ad valorem	25	per cent.	
	Matches and Vestas (except safety matches)—			
	For boxes containing 100 matches or under ... per gross	0	1	0
	For each additional 100 or part thereof "	0	1	0

* See also Order 25 post.

IMPORT DUTIES—continued.

For the position of any article, see Index.

Order.	Articles.	Rate of Duty.		
		£	s.	d.
14	Medicines, patent or so called, or being subject to a stamp duty in the country whence exported ad valorem	20	per cent.	
	Naphtha per gallon	0	0	6
	Opium, Morphia per lb.	1	0	0
	Paints, not prepared ready for use per cwt.	0	2	0
	„ mixed ready for use „	0	4	0
	Sarsaparilla (not containing more than 25 per cent. of proof spirit) per gallon	0	6	0
	Soap (extract of), Soap and Washing Powders per lb.	0	0	2
	Turpentine and Varnish per gallon	0	0	6
15	Blankets ad valorem	15	per cent.	
	Carpets and Carpeting „	25	per cent.	
	Carpet Bags „	15	per cent.	
	Rugs „	15	per cent.	
	Woollen and Flannel Piece Goods (except Dress Piece Goods), Cloths, Tweeds, Estamenes, and Serges, not enumerated „	25	per cent.	
16	Silks (<i>see also</i> Order 18, Drapery and Millinery) „	15	per cent.	
17	Bags, canvas „	25	per cent.	
	Quilts „	15	per cent.	
18	Drapery and Millinery:—Bonnet, Dress, Mantle, and Jacket Ornaments, Trimmings and Fringes, Corsets, Crapes, Embroidery, Flowers, Gloves, Gimp, Gossamer, Handkerchiefs, Lace (cotton, silk, or wool), Nets, veil or trimming. Piece Goods, viz.:—Silk and manufactures thereof, containing 5 per cent. of silk (not enumerated), Satins, Plushes, and Velvets, Ribbons, Ruffling, Tablecloths, Table and Toilet Covers (cotton or linen), Table Napkins, Towels and Dusters „	25	per cent.	
	Drapery and Millinery, unenumerated (except Hosiery not enumerated to be considered as enumerated) „	15	per cent.	
19	Apparel and Slops being mole clothing and imitation thereof „ not otherwise enumerated „	25	per cent.	
	Bonnets and Caps not enumerated „	25	per cent.	
	Boot and Slipper Uppers, Bootlaces, Leather Boots and Shoes, except indiarubber shoes (present English sizes to be the standard), viz.:—			
	Men's No. 6 and upwards per doz. pairs	1	13	0
	Youths', Nos. 2-5 „	1	1	0
	Boys', Nos. 7-1 „	0	17	6
	Women's, No. 3 and upwards, except lasting and stuff boots, including goloshed boots „	0	19	6
	Girl's, Nos. 11-2, except lasting and stuff boots, including goloshed boots „	0	16	0
	Girl's, Nos. 7-10, except lasting and stuff boots, including goloshed boots „	0	11	6
	Not enumerated ad valorem	25	per cent.	
	Feathers* „	20	per cent.	
	Furs* „	25	per cent.	
	Hats, viz.:—Boys' and Youths' Felt Hats and Glazed Straw Hats per dozen	0	8	0

* See also Order 24 post

IMPORT DUTIES—continued.

For the position of any article, see Index.

Order.	Articles.	Rate of Duty.		
		£	s.	d.
19	Hats, Men's Felt Hats and Women's untrimmed Felt Hats, of any size per dozen	0	15	6
	„ Boys', Youths', and Men's Hats, with calico or other foundation or frame, covered with felt, plush, silk, merino, velvet, or other material not enumerated	1	10	0
	„ Dress Hats (known as)	2	8	0
	„ Pith ad valorem	15	per cent.	
	„ Not enumerated	25	per cent.	
	Hosiery		„	
	„ knitted	20	per cent.	
	Leggings	25	per cent.	
	Umbrellas and Parasols		„	
	Walking Sticks		„	
	Wigs		„	
20	Cordage, viz.:—Coir Rope per cwt.	0	5	0
	„ other (except Galvanized and other Iron, and Steel Cordage)	0	11	0
	„ Galvanized Iron	0	3	0
	„ Twine and Cord, including Fishing Lines (except Sewing or Seaming Twine) per lb.	0	0	2
	Matting ad valorem	15	per cent.	
	Mats, all kinds of	25	per cent.	
	Oil and Floor Cloth	15	per cent.	
	Tents and Tarpaulins	20	per cent.	
21	Butter per lb.	0	0	2
	Butterine	0	0	4
	Cheese	0	0	4
	Fish (dried and salted) and Sardines (except in pickle or brine)	0	0	1
	„ preserved (except Sardines)	0	0	2
	„ Paste	0	0	2
	Honey	0	0	3
	Meats—Bacon and Hams	0	0	4
	„ preserved	0	0	2
	„ Pork (in pickle)	0	0	3
	Soup—Preserved	0	0	2
22	Biscuits	0	0	2
	Confectionery	0	0	3
	Fruits—Bottled (quarts) per dozen	0	4	0
	„ „ (pints)	0	2	0
	„ „ (smaller sizes)	0	1	6
	„ Currants and Raisins per lb.	0	0	2
	„ Candied	0	0	3
	„ Dates	0	0	2
	„ dried (except Dates, Currants, and Raisins)	0	0	3
	„ fresh per bushel	0	1	0
	„ preserved per lb.	0	0	2
	„ pulp	0	0	4
	Grain (except Wheat overland) and Pulse of every description not enumerated, and whether prepared, ground, or in any way manufactured per 100 lbs.	0	2	0
	„ Barley per bushel	0	1	0

IMPORT DUTIES—continued.

For the position of any article, see Index.

Order.	Articles.	Rate of Duty.
		£ s. d.
22	Grain, Maize per 100 lbs.	0 1 0
	„ Rice and Rice Flour per cwt.	0 3 0
	Jams and Jellies per lb.	0 0 3
	Preserves „	0 0 3
	Macaroni and Vermicelli „	0 0 2
	Malt per bushel	0 2 6
	Nuts (except Cocoanuts) per lb.	0 0 3
	Oatmeal per ton	2 0 0
	Onions per cwt.	0 2 0
	Potatoes „	0 1 0
	Sugar „	0 3 0
	„ Glucose „	0 6 0
	„ Molasses and Treacle „	0 3 0
	Vegetables—Preserved per lb.	0 0 2
23	Aërated Waters ad valorem	20 per cent.
	Ale, Porter, Spruce, or other Beer, Cider, and Perry per gallon	0 1 0
	Chicory, including kiln-dried (except Green Root) per lb.	0 0 6
	„ Green Root per ton	3 0 0
	Chocolate per lb.	0 0 3
	Cocoa, manufactured... .. „	0 0 3
	Coffee and substitutes therefor, mixed with Chicory or	
	Coffee „	0 0 6
	„ raw „	0 0 3
	„ roast or ground „	0 0 4
	Cordials—Lime Juice and Aërated, not spirituous per gallon	0 1 0
	„ not spirituous ad valorem	20 per cent.
	Hops per lb.	0 0 6
	Limejuice per gallon	0 1 0
	Milk (preserved), and compound thereof per lb.	0 0 1
	Mineral Waters ad valorem	20 per cent.
	Mustard per lb.	0 0 3
	Pickles, bottled (quarts) per dozen	0 4 0
	„ „ (pints) „	0 2 0
	„ „ (smaller sizes) „	0 1 6
	Pepper per lb.	0 0 2
	Perfumery ad valorem	25 per cent.
	Salt per ton	1 5 0
	Sauces, bottled (quarts) per dozen	0 4 0
	„ „ (pints) „	0 2 0
	„ „ (smaller sizes) „	0 1 6
	Spices per lb.	0 0 2
	Syrups ad valorem	20 per cent.
	Spirits (of all kinds), the strength of which can be ascer- tained by Sykes' hydrometer per proof gallon	0 14 0
	„ and Spirituous Compounds (of all kinds), the strength of which cannot be ascertained by Sykes' hydrometer... .. per liquid gallon	0 14 0
	„ (of all kinds) used for fortifying Wine, the produce of the Province per proof gallon	0 2 6
	„ Perfumed „	1 4 0
	„ Methylated per liquid gallon	0 3 0

IMPORT DUTIES—*continued*.For the position of any article, *see* Index.

Order.	Articles.	Rate of Duty.		
		£	s.	d.
23	Tea per lb.	0	0	3
	Tobacco—Manufactured "	0	2	9
	" Unmanufactured "	0	1	7½
	" Cigars "	0	6	3
	" Snuff "	0	6	0
	Vinegar, containing not more than 5 per cent. of acidity ... per gallon	0	0	9
	" for every extra 1 per cent. or part of 1 per cent. of acidity "	0	0	2
	Wine, if not containing more than 35 per cent. of proof spirit "	0	6	0
	" sparkling "	0	10	0
24	Beeswax per lb.	0	0	3
	Candles "	0	0	2
	Curled Hair "	0	0	2
	Feathers* ad valorem	25 per cent.		
	Furs* "	" "		
	Glue per lb.	0	0	2
	Leather Millbands ad valorem	25 per cent.		
	" not enumerated, except Roans and Skivers "	15 per cent.		
	Leatherware of every description, not enumerated "	25 per cent.		
	Portmanteaux and Trunks (of all kinds) "	" "		
25	Soap (other than fancy) per lb.	0	0	1
	" (fancy) "	0	0	4
	Stearine "	0	0	1
	Basketware ad valorem	25 per cent.		
	Blue per lb.	0	0	2
	Buckets and Tubs (of all kinds) ad valorem	25 per cent.		
	Lasts (wood) "	" "		
	Paper Bags, printed per cwt.	0	15	0
	" not printed "	0	10	0
	" Wrapping (of all kinds), Tissue "	0	3	4
26	Picture Frames (except for public institutions) ad valorem	25 per cent.		
	Starch per lb.	0	0	2
	Timber, viz.:—			
	Battens, Deals, Planks, Quartering, Spars ... per 40 cubic ft.	0	2	6
	Boards, ¾ inch to 1½ inch, rough or planed, tongued or grooved ... per 100 sup. ft.	0	1	6
	Laths per 1,000	0	1	0
	Palings per 100	0	0	6
	Shingles per 1,000	0	0	6
	Wickerware and Woodware ad valorem	25 per cent.		
	Wood (bent) and Joinery "	" "		
26	Oils (except Cloth, Cod, Cocoanut, Palm, Seal, and Whale, free) per gallon	0	0	6
	" Kerosene "	0	0	3
	" Salad or Olive, in bulk "	0	2	0
	" bottled (quarts) per dozen	0	4	0
	" " (pints) "	0	2	0
	" " (smaller size) "	0	1	6
	Paraffin and Mineral Wax per lb.	0	0	1

* See also Order 19 ante.

IMPORT DUTIES—continued.

For the position of any article, see Index.

Order.	Articles.						Rate of Duty.		
							£	s.	d.
27	Boring Rods and Tools	...	...	...	...	ad valorem	25	per cent.	
	Whim Bows and Mounting	...	...	...	...	"
29	China and Earthenware, not enumerated	...	...	...	...	"	15	per cent.	
	Earthenware, Brown, and Stoneware	...	...	...	...	"	20	per cent.	
	Glass, Plate and Sheet, not enumerated	...	...	...	...	"	15	per cent.	
	" Silvered	...	...	...	...	"	25	per cent.	
	Glassware—cut, engraved, etched, or ground, and Bottles (except Medicine Bottles)	...	...	...	...	"	20	per cent.	
	" not enumerated	...	...	...	...	"	15	per cent.	
	Lamps and Lampware	...	...	...	...	"
	Mantelpieces	...	...	...	...	"	25	per cent.	
	Marble, Stone, Slate, wrought...	...	...	...	...	"	20	per cent.	
	" Slate, Stone (for building), unwrought	...	...	...	...	per cubic ft.	0	1	0
	Plaster of Paris	...	...	...	...	per barrel	0	3	0
	Polishing Powders and Pastes	...	...	...	...	ad valorem	25	per cent.	
	Tiles	...	...	...	...	"
31	British Plate	...	...	...	...	"
	Jewellery	...	...	...	...	"
	Metal Services, Spoons and Forks (except Steel Table Forks)	...	...	...	...	"	15	per cent.	
	Plate and Plated Ware, not enumerated	...	...	...	...	"	25	per cent.	
	Silverware	...	...	...	...	"
32	Kettles and Pans (copper and brass)	...	...	...	...	"
	Lead, Pipe and Sheet	...	...	...	...	per cwt.	0	2	6
	Metals, Manufactures, as under :—								
	Bedsteads	...	...	...	...	ad valorem	25	per cent.	
	Bells (all kinds)	...	...	...	...	"
	Bird Cages	...	...	...	...	"
	Bolts and Nuts, over $\frac{3}{8}$ -inch diameter	...	...	...	...	"
	Bridges and Bridge Work, manufactured	...	...	...	...	"
	Bright Wireware	...	...	...	...	"
	Britannic Metalware	...	...	...	...	"
	Buckets and Tubs (of all kinds)	...	...	...	...	"
	Campovens and Covers	...	...	...	...	"
	Candle Moulds and Candlesticks	...	...	...	...	"
	Castings, not enumerated	...	...	...	...	"
	Grates, Stoves, Ranges, and Ovens, and parts thereof	...	...	...	...	"
	Hooks, Cabin	...	...	...	...	"
	Iron Safes	...	...	...	...	"
	" Manufactures, Galvanized	...	...	...	...	"
	" Galvanized, Corrugated, unmanufactured...	...	...	...	...	per ton	1	10	0
	" or Steel Columns, Girders (rolled or riveted), Pipes, Tubes	...	...	...	...	"	2	0	0
	" Galvanized and Iron Cordage	...	...	...	...	per cwt.	0	3	0
	" Nails	...	...	...	...	"	0	2	0
	" Brackets, Doors, Gates, Kibbles, Lasts	...	...	...	...	ad valorem	25	per cent.	
	Japanned Ware	...	...	...	...	"
	Metals (Manufactures of), not enumerated (except Plough and Scarifier Shares)	...	...	...	...	"
	Plummer Blocks and Brasses	...	...	...	...	"
	Sashweights, Staples	...	...	...	...	"

IMPORT DUTIES—continued.

For the position of any article, see Index.

Order.	Articles.							Rate of Duty.		
								£	s.	d.
32	Scrapers	...	...	...	...	...	ad valorem	25	per cent.	
	Screws	...	...	...	...	...	per cwt.	0	2	0
	Shafting, cold-rolled or turned, and Couplings	...	...	...	...	...	ad valorem	25	per cent.	
	Steel, Plough and Scarifier Shares	...	...	...	...	...	"	15	per cent.	
	Tinware	...	...	...	...	...	"	25	per cent.	
	Tiring Plates	...	...	...	...	...	"
	Troughing	...	...	...	...	...	"
33	Cattle (horned), Cows, Oxen, Heifers, Bulls, Steers, Calves, over 6 months old (except Working Bullocks in teams)	...	...	...	...	...	each	0	5	0
	Horses, Mares, Geldings, Colts, and Fillies, over the age of 6 months (except in Saddle or Harness)	...	...	...	...	...	"	0	5	0
	Sheep	...	...	...	...	...	"	0	0	6
	Pigs	...	...	...	...	...	"	0	2	0
	Fancy Goods	...	...	...	...	...	ad valorem	15	per cent.	
36										

DUTIES ON UNSPECIFIED ARTICLES.

On Imported Goods not included in the foregoing Schedule,
or in the following Free List ad valorem 10 per cent.

Free List.

Order.	Articles.	Order.	Articles.
1	Books—Printed	6	Eyeglasses and Spectacles (except gold and silver)
	Paper—Blotting, Copying, Felt, Marble, Albuminized, Tracing, Coloured, Surface, Gelatine, Flint, Glazed, Morocco, Striped, Plaid, Printing and Writing (except faint lined)		Magnets
	Slates, School		Measuring Tapes
	Drawing Pins		Photographic—Cameras
	Music		" Dry Plates
	Newspapers—Printed		Scales, Balances, and Weights and Measures
	Paper Fasteners		Sensitized Paper
	Pencils—Carpenters' and Slate		Scientific and Optical Instruments
	Pens and Penholders (not fancy)		Spirit Levels
	Transfers and Album Scraps		Surveyors' Chains
			Telephones
3	Atlases	7	Artificial Teeth
	Globes, School		Dentists' Tools and Materials
	Maps		Stump and Finger Joints
	Natural History Card		Surgical Instruments
	Paintings and Engravings		
4	Picture Cards—School	8	Blasting Powder, Dynamite, and Litho-fracteur
	Works of Art—Chromo and Oleographs		Detonators
	Picture-frame Mouldings (except gold and solid polished wood)		Fuse
5	Paint-boxes—Toy	9	Anvils
			Combined Mower and Binder
			Eyelet Punches, Eyelets, and Webbing

IMPORT DUTIES—*continued.*

Free List—continued.

For the position of any article, *see* Index.

Order.	Articles.	Order.	Articles.
9	Forks—Hay and Digging Engines—Gas, Portable, and Traction Dry Air Refrigerating Machine, without engine Glaziers' Diamonds Hooks—Reaping Irons—Hatters', Italian, Smoothing, Cloth Manufacturers', and Tailors' Knives—Leather, Machine, Putty, Hay, Shoemakers', Saddlers', Chaff-cutting Knife Sharpeners and Powders Knitting Machine Machinery for Carding, Spinning, Weaving, and Finishing Manufactures of Fibrous Materials, and Cards for such Machinery „ used in the manufacture of Paper and for Felting; (including Wire Cloth and Felts) „ Roller, etc., connected therewith, not enumerated, for Flour-milling purposes „ Printing Presses and Machines „ Lathes, over 3½ tons weight „ Drilling Machines, over 2½ tons weight „ Planing Machines, over 6 tons weight „ Punching Machines, over 7 tons weight „ Shearing Machines, over 7 tons weight „ Plate Bending Machines, over 5 tons weight „ Slotting Machines, over 4 tons weight „ Shaping, over 2½ tons weight „ Bookbinding and Ruling Machines (except engines and shafting) Mops Rabbit Traps Raddle Sewing Machines and Slabs Scythe and Scythe Handles Shears Shovels and Spades	9	Sickles Tools, not otherwise enumerated
		10	Carriage Trimmings Bicycle Steel Backbones or Tubes, and Rims, unfinished Hames, all kinds Harness—Minor Articles and Mountings Saddlers' Bindings and Ironmongery Shaft Tips Slots, Iron, for carriage building Whipsockets
		11	Anchors, over 3 cwt. Chain Cables and Traces (not galvanized)
		12	Putty
		13	Door Knobs and Handles—Brass, Glass, or China Upholsterers' Trimmings
		14	Acid—Tartaric Alkali—Pearlash „ Potash, Canadian „ Soda ash—Caustic, Nitrate, Silicate Antifouling Composition Asphalt Brimstone — Crude and Flour of Sulphur Colours—Artists' Canvas, and Pallet Knives Copperas Dyestuffs, being Aniline Dyes, Bichrome, Dyewoods, Dyewood Extracts, and Indigo Ink, and Ink Powders Myrobalans Oil of Rhodium Phosphorus Sheep Dip and Wash Strychnine Sulphate of Copper Sumach and Valonia
		15	Crimean and Union Shirtings, in the piece Sock, Lining Wool, Mending
		16	Mill Silk Oil Silk Sewing Silk Silk Tags
		17	Bookbinding Cloth

IMPORT DUTIES—*continued.**Free List*—continued.For the position of any article, *see* Index.

Order.	Articles.	Order.	Articles.
17	Cotton Goods, in the piece (except Velvets and Velveteens), to be considered as unenumerated articles Cotton, for Hosiery, Packing, Raw, Silicate, Waste, Wick, and Knitting and Mending Cloth Lining, Italian Cotton Thread, Sewing Linen Goods, in the piece Lint	20	Nets, Fishing Oakum and Junk Oil Baize Oil Cloth Sewing Twine Webbing Window Lines, Patent Yarn—Angora, Wool, and Cotton Mending „ Combed, not being fingering
18	Braids and Bindings Elastic Pins and Needles Tapes	22	Arrowroot Corn Flour Ginger, Green Grain—Wheat (overland) Groats, Patent Maizena Nuts, viz., Cocoanuts Peas, Split Pea Flour Pearl and Patent Barley Rice, imported into any bonded warehouse and manufactured into starch therein „ Offal
19	Bonnet Shapes Bonnets and Hats—Straw, Chip, Willow, Tape, or Braid, untrimmed Boots and Shoes—Children's No. 0-3 (present English sizes * to be the standard) Boot Elastic „ Hooks „ Laces, other than leather Buckles, all kinds of Buttons, all kinds of Hatters' Materials (except Felt Hoods, Pullover Hoods, and any article of Felt prepared for the manufacture of hats) Hooks and Eyes Metal Toe Caps, Heel Plates, and Boot Protectors Stay Busks Umbrella and Parasol Parts (except Covers) Waterproof Material in which India-rubber or guttapercha is used in the manufacture	23	Sago Tapioca Cocoa Nibs Lime Juice, in bulk Salt, Rock Saltpetre
20	Bags and Sacks, printed or otherwise, being Bran, Corn, Flour, Gunny, Ore, and Woolpacks, not enumerated Bagging, Forfar and Hessian Bolt Rope Yarn, Russian Bunting, in the piece Canvas and Canvas Hose „ Penelope Cloth, American Leather Coir Yarn Felt, Sheathing and Paper, Roofing Harvest Twines, up to and including 31st December, 1887	24	Bone black Bones Guano and other Manures Hair, Seating and Unmanufactured „ and Bristles, and other Material for Brushmaking Hides and Skins, Raw Ivory Leather—Patent Enamelled, Kid „ Hogs skin, Levant, Morocco, and imitation thereof Patent Roller Composition Tallow Washers—Raw Hide Wool, Washed or Greasy
		25	Backs, Wooden, for Brushes Bass, and other Material for Brush-making Cane „ imitation

IMPORT DUTIES—*continued.*

Free List—continued.

For the position of any article, *see* Index.

Order.	Articles.	Order.	Articles.
25	Cardboard, Strawboard, and Millboard (plain) Corks—Cut and Cork, Cork Socking Ebonite and Vulcanite Bottle Stoppers Fibre, Cocoa Flax Gutta-percha Hemp Indiarubber Bottles " Stamps, Erasers, Antirattlers, Buffers, Washers, and Tires for Bicycles Hosing and Tubing Jute Linseed Oil Cake Osiers Pitch, Tar, and Resin Rattans Shellac Shoe Pegs and Pegwood Timber—Ash, in the rough; Balks, Logs, Sleepers (railway), Square, over 4in. thick; Trenails and Spokes, in rough; Clear Pine, in rough (irrespective of size); Sawn Hickory, Sawn Blackwood, and Staves, in the rough Vegetable Wax Veneers, Wood Wooden Hoops for Casks	32	Bolts and Nuts, $\frac{3}{8}$ in. diameter and under Bolt Ends and Nuts, $\frac{3}{8}$ in. diameter and under Brass—Bar, Sheet, Rod, and Rolled Bushes—Patent Roller for Block-making Capsules Copper—Wire, covered Emery Cloth, Powder, and Paper Hinges (except T and Hook Hinges) Iron, Bar and Rod " Galvanized, Sheet and Plain " Girder Plates, unmanufactured " Hoop, Ore, Pig, Plates " Galvanized Iron Droppers " Rails for Rail and Tramways " Scrap, Sheet, Tubing cased with Brass " Wire, Wire Galvanized, Wire Netting, all kinds " Wrought Iron Tubes and Pipes, under 6in. internal diameter Ironmongery, minor articles of, not enumerated Latches and Locks of all kinds Lead Ore, Pig and Scrap Metals—Antimony, in Ingots Metal—Barrel and Cupboard Bolts " Copper and Yellow Metal, Sheathing, Bar, Rod, and Nails " Muntz Mortise-lock Furniture and Finger-plates Ores Platinum Quicksilver Rivets, Steel, Iron, or Galvanized Sash-fasteners and Lifts Shoemakers' Nails (sparrow-bill), Wrought and Cast Tips, Bright and Black Mal. Hobs, Nuggets, Hungarian Cut Sprigs, Steel Bills, Tingles, Iron and Brass Rivets Springs—Door, Safe, and Chair Steel—Bar, Rod, Sheet, Fencing Wire, Standards and Droppers, Steel Cranks and Tires in the rough for railways and tramways Steel, Wire Cordage
26	Oil—Cocanut, Cod (bulk), Palm, Seal, Whale, and Black Shale		
27	Diamonds—Mining		
28	Coal, Lignite, and Coke Shale		
29	Ballast, not being stone, enumerated Bricks, Bath and Dinas Chalk, and Demonstration Crucibles Grindstones Holloware Holystones Lithographic Stones Millstones Porcelain Chemical Apparatus		
31	Coin, Specie, and Bullion Gold and Silver Leaf Precious Stones, unset		
32	Black Sand		

IMPORT DUTIES—continued.

Free List—continued.

For the position of any article, see Index.

Order.	Articles.	Order.	Articles.
32	Tanks Iron (except Galvanized or Corrugated) Tin—Block, Ingot, Sheet, Plates, and Tin Plates, decorated Tinfoil Tubing—Metal (except Iron) Wire of all kinds (except Gold, Silver, and Plated) Zinc—Ingots, Perforated and Sheet	34	Plants and Trees Seeds and Bulbs—Garden " Grass
33	Animals—Living, not enumerated	35	Casks and Cases, for dry goods and packages in which goods are ordinarily imported (except Glass or Stone Bottles enumerated), and empty returns Type
		36	Specimens of Natural History

EXCISE DUTY.

Order 23.—Spirits Distilled in the Colony	... .. per proof gallon	£ s. d.
(And so in proportion for any greater or less strength than proof.)		0 9 4

TARIFF OF NORTHERN TERRITORY OF SOUTH AUSTRALIA.

IMPORT DUTIES.*

Order.	Articles.	Rate of Duty.
		£ s. d.
14	Opium per lb.	1 0 0
22	Rice "	0 0 0½
23	Sugar (of all kinds) and Molasses per cwt.	0 5 0
	Tea per lb.	0 0 6

NOTE.—With these exceptions, the South Australian Tariff, as published in the *Victorian Year-Book* 1886-7, is in operation in the Northern Territory in respect of all goods imported, not being animals.

EXPORT DUTY.*

Order 31.—Gold	... .. per oz. troy	£ s. d.
		0 1 0

* These duties are imposed under the *Northern Territory Customs Act*, No. 254, of 1832

TARIFF OF WESTERN AUSTRALIA.

(Came into force on 6th January, 1888.)

IMPORT DUTIES.

For the position of any article, *see* Index.

Order.	Articles.	Rate of Duty.
		£ s. d.
8	Powder—Blasting per lb.	0 0 1
	„ Gun and Sporting „	0 0 4
	Shot per cwt.	0 5 0
9	Boilers—Land and Marine ad valorem	5 per cent.
	Boiler Tubes „	„
	Diving Apparatus „	„
	Forges, Anvils, and Bellows „	„
	Grindery—Shoemakers' „	„
	Hose—Canvas, Indiarubber, and Leather „	„
	Machinery (Agricultural), including Ploughs, Harrows, Scarifiers, Rollers, Horse Rakes, parts of Reaping, Winnowing, Threshing, and Mowing Machines, Machines for Sowing Seed by horse-power, Moulding Boards, Plough Shares, Horse-powers, and Chaff-cutters „	„
	Machinery for Separating Cream „	„
	„ for Flour Mills „	„
	Smelting Material and Plant „	„
	Steam-engines, and parts of „	„
	Weighbridges „	„
10	Carriages, Carts, and Waggon	20 per cent.
	Harness and Saddlery „	„
	„ Mountings and Furniture „	5 per cent.
	Housings, Saddlers' „	„
11	Anchor	„
	Block	„
	Boat	20 per cent.
	Cable and Chain	5 per cent.
	Spars „	„
	Work for Patent Slips and Docks „	„
12	Cement per barrel	0 2 0
	Doors, Windows, Sashes, and Frames ad valorem	20 per cent.
	Mantelpieces „	„
13	Earth Closets „	5 per cent.
	Furniture „	20 per cent.
14	Disinfectants „	5 per cent.
	Soda—Crystal per cwt.	0 2 0
	Spirits—Methylated, and others rendered unfit for human consumption per gallon	0 1 0
	Wool-scouring, Patent Materials for ad valorem	5 per cent.
20	Bags and Sacks—Bran per dozen	0 0 6
	„ Corn and Flour „	0 0 6
	„ Gunny „	0 0 3
	„ Ore „	0 0 3
	„ Wool Bales each	0 0 4
	Canvas ad valorem	5 per cent.

IMPORT DUTIES—*continued.*

For the position of any article, see Index.

Order.	Articles.						Rate of Duty.		
							£	s.	d.
20	Cordage, Rope, and Twine ad valorem						5 per cent.		
	Engine Packing "						"		
	Felt—Sheathing "						"		
	Hose—Canvas, Indiarubber, and Leather "						"		
21	Butter, Butterine, and like substances per lb.						0	0	2
	Cheese "						0	0	3
	Lard "						0	0	2
	Meats—Bacon, smoked or dried, and in pickle or brine, Hams, and Tongues "						0	0	3
22	Beef and Pork, in pickle or brine, and Fresh Meat "						0	0	1
	Arrowroot "						0	0	1
	Biscuits "						0	0	1
	Confectionery "						0	0	4
	Flour per ton (2,000 lbs.)						1	0	0
	Fruit—Dates per lb.						0	0	1
	" Dried "						0	0	3
	Grain and Pulse—Barley per bushel (50 lbs.)						0	0	4
	" Maize and Gram (60 lbs.)						0	0	6
	" Malt "						0	2	0
	" Oats (40 lbs.)						0	0	4
	" Wheat (60 lbs.)						0	0	6
	Oatmeal per ton						1	10	0
	Onions "						1	0	0
	Peel—Candied per lb.						0	0	3
	Potatoes per ton						1	0	0
	Rice per cwt.						0	2	0
	Sago, Tapioca, and Corn Flour per lb.						0	0	1
	Sugar, Molasses, Treacle, and Golden Syrup per cwt.						0	4	0
	Aërated and Mineral Waters ad valorem						20 per cent.		
23	Beer, Cider, and Perry per gallon						0	1	0
	Cocoa, Chocolate, Preparations of Cocoa and Chocolate, Chicory, Coffee (roast or ground) per lb.						0	0	3
	Coffee (raw) "						0	0	2
	Cordials (not spirituous) ad valorem						20 per cent.		
	Ginger per lb.						0	0	3
	Hops "						0	0	4
	Oils, Mineral, and Turpentine per gallon						0	0	6
	Pepper per lb.						0	0	3
	Perfumery ad valorem						20 per cent.		
	Salt (except Rock) per ton						1	0	0
	Spices per lb.						0	0	3
	Spirits, Cordials, or Strong Waters (not being perfumed, or Medicinal Spirits to be used as medicine or perfumery only), of any strength not exceeding the strength of proof by Sykes' hydrometer per gallon						0	15	0*
	Spirits of Wine (not being for medicinal purposes) "						1	0	0
	Tea per lb.						0	0	4
	Tobacco (manufactured) "						0	3	0
	" (unmanufactured) "						0	1	0

* And so in proportion for any greater strength than the strength of proof, or any quantity greater or less than a gallon.

IMPORT DUTIES—continued.

For the position of any article, see Index.

Order.	Articles.						Rate of Duty.		
							£	s.	d.
23	Tobacco (for sheep wash)	...	...	...	...	per lb.	0	0	3
	Cigars, Cigarettes, and Snuff	...	...	...	...	"	0	5	0
	Vinegar	...	...	...	...	per gallon	0	0	6
	Wine, sparkling	...	...	...	...	"	0	7	6
24	" other	...	...	...	...	"	0	5	0
	Candles	...	...	...	...	per lb.	0	0	2
	Leather—American Patent (not being Oil Baize)	...	...	...	...	ad valorem	5 per cent.		
	" Kid Skins, Mock Kid Skins, Patent Leather, Levant Leather, Morocco Leather, Seal Skins, French Calf Skins, Roan and Satin Hides	...	...	...	...	"	0 " 0		
25	Soap (not Toilet)	...	...	...	...	per cwt.	20 per cent.		
	" Perfumed, Toilet, and Fancy	...	...	...	...	ad valorem	1	0	0
	Bran and Pollard	...	...	...	...	per ton	1	0	0
	Hay and Chaff	...	...	...	...	"	1	0	0
	Oakum	...	...	...	...	ad valorem	5 per cent.		
	Pitch	...	...	...	...	"	"
	Resin	...	...	...	...	"	"
	Staves and Hoops for Casks	...	...	...	...	"	"
26	Timber (worked), Architraves, Boards (planed, tongued, or grooved), Laths, Mouldings, Palings, and Skirtings	...	...	...	...	"	20 per cent.		
	Oil, Fish, and Vegetable (except Salad in bottles)	...	...	...	...	per gallon	0	0	6
	Machinery for Crushing Quartz	...	...	...	...	ad valorem	5 per cent.		
	Wire Cloth for Quartz Crushing Machinery	...	...	...	...	"	"
29	Bottles (empty)	...	...	...	...	"	"
	Filters	...	...	...	...	"	"
	Millstones	...	...	...	...	"	"
	Marble and Stone (wrought)	...	...	...	...	"	20 per cent.		
31	Jewellery, Electro, Nickel, and other Plated, and Precious Stones	...	...	...	...	"	5 per cent.		
32	Brass—Sheet or Rolled	...	...	...	...	"	"
	Copper—Rod	...	...	...	...	"	"
	" Sheet	...	...	...	...	"	"
	" Wire	...	...	...	...	"	"
	Iron—Gates, Hurdles, and Wrought Bars for Fencing	...	...	...	...	per cwt.	0	1	0
	" Sheet, Galvanized, Corrugated	...	...	...	...	per ton	2	0	0
	" Water and Gas Pipes	...	...	...	...	ad valorem	5 per cent.		
	" Wire—Standards and Staples for Fencing	...	...	...	...	per ton	0	10	0
	" Netting	...	...	...	...	ad valorem	5 per cent.		
	" Bottling	...	...	...	...	"	"
	" Rope (galvanized)	...	...	...	...	"	"
	Lead—Sheet, Pig, and Piping	...	...	...	...	per cwt.	0	2	6
	Solder	...	...	...	...	"	0	10	0
	Tin—Block, Plate, and Foil	...	...	...	...	ad valorem	5 per cent.		
	Tinware	...	...	...	...	"	20 per cent.		
	Zinc—Sheet and Plain	...	...	...	...	"	5 per cent.		
33	Cattle—Horned (for slaughter)	...	...	...	...	each	1	10	0
	Horses	...	...	...	...	"	1	0	0
	Sheep (for slaughter)	...	...	...	...	"	0	2	6
	Pigs	...	...	...	...	"	0	4	0
35	Brewery and Distillery Plant	...	...	...	...	ad valorem	5 per cent.		
	Printing Presses and Type	...	...	...	...	"	"

IMPORT DUTIES—continued.

For the position of any article, see Index.

DUTIES ON UNSPECIFIED ARTICLES.

On all Goods, Wares, Articles of Merchandise, or things imported into this colony, and not included in the foregoing Schedule, or in the following list of Exemptions, ad valorem, 12½ per cent.

Exemptions.

Order.	Articles.	Order.	Articles.
1	Books, printed, not being Account, including Music and Charts	32	Iron and Steel—Unworked, Bar, Sheet Rod, Plate, and Hoop
2	Band Instruments for Volunteer Force		Iron—Pig
	Bells, Musical Instruments, and parts of, for places of Worship		„ Galvanized Sheet, Plain
7	Surgical, Scientific, and Optical Instruments		Metal Sheathing
9	Fire Engines		Rails and Fastenings for Railways and Tramways
	Immigrants' Tools and Implements of Trade, not exceeding £10 in value per immigrant	33	Animals—Live (except Horses, Horned Cattle, Pigs, and Sheep, except as named in the first Schedule)
14	Soda—Ash and Nitrate of Potash	34	Plants and Bulbs
	Sulphur		Seeds
23	Rock Salt	35	Outside packages in which goods are ordinarily imported, and which are of no commercial value, except as covering for goods
24	Bones and other Manures, including all Fertilizers and Substances to be used in the preparation of Artificial Manures	36	Personal Baggage, not including vehicles, glassware, silver and gold plate, and plated goods, and furniture other than cabin furniture, which is imported with and by passengers, immigrants, and travellers <i>bonâ fide</i> for their own personal use, and not imported for the purpose of sale
	Hides—Raw		Provisions or Stores, Military or Naval, required for Her Majesty's Service
25	Paper for Printing purposes		Uniforms and Appointments, Military, Naval, and Civil, imported by officers stationed in the colony for their own purpose
26	Cod Oil in bulk		
	Paraffin Wax, Paraffin, Scale, and Stearine		
27	Machinery for boring for Water, Coal, and other Minerals		
28	Coal, Coke, and Patent Fuel		
29	Coloured Glass for Church Windows		
	Stones imported by Municipalities for Flagging		
30	Ice		
31	Specie—Bullion and Coin		

EXPORT DUTIES.

Order.	Articles	Rate of Duty.
		£ s. d.
14	Guano Royalty per ton	0 10 0
24	Pearl Shells—Live per ton	4 0 0
	„ „ Dead „	1 0 0
25	Sandalwood... .. „	0 5 0

TARIFF OF TASMANIA.

(Came into operation on the 2nd June, 1888.)

IMPORT DUTIES.*

For the position of any article, see Index.

Order.	Articles.	Rate of Duty.		
		£	s.	d.
1	Account Books, Stationery, Envelopes, Playing Cards, and Writing Paper of every description, not otherwise enumerated ad valorem	12½	per cent.	
	Slate Pencils and Slates "		"	
2	Harmoniums† "		"	
	Musical Instruments of every description† "		"	
	Organs and Cabinet Organs† "		"	
	Pianofortes "		"	
3	Photographs (framed or unframed)† "		"	
	Pictures of every description† "		"	
	Prize Reward or Trophy given or imported for the purpose of being given at any public exhibition or competition "		"	
	Statuary "		"	
	Works of Art† "		"	
4	Mouldings made of Wood† "	20	per cent.	
	Pipes, Clay "	12½	per cent.	
5	Cricketing Materials "		"	
	Toys "		"	
	Fireworks "		"	
6	Clocks of every description "		"	
	Compasses, Ships' "		"	
	Watches of every description "	20	per cent.	
8	Cartridges "	12½	per cent.	
	Guns, Fowling Pieces, and Pistols "		"	
	Gunpowder for blasting purposes per lb.	0	0	1
	" Sporting "	0	0	6
	" (F.F.F.), loose "	0	0	1
	Shot "	0	0	1
9	Agricultural Tools, Implements, and Machinery, not otherwise enumerated ad valorem	5	per cent.	
	Boilers—Cast Iron "	12½	per cent.	
	Packages containing less than 28lbs. to pay duty as if weighing 28lbs.			
	Chaffcutters "		"	
	Crucibles "		"	
	Cutlery of every description (except Sheepshears) "		"	
	Horse Hoes "	5	per cent.	
	Mops—Woollen and Cotton "	12½	per cent.	
	Machinery of every description, not otherwise enumerated... .. "		"	
	Rakes (Horse) "	5	per cent.	
10	Bath Chairs "	12½	per cent.	
	Carriages on two Wheels and Springs, intended to be drawn by cattle on ordinary roads each	6	0	0

* The principal alterations made by this Tariff were the increase of the 10 per cent. ad valorem duties to 12½ per cent.
† See also List of Exemptions.

IMPORT DUTIES—*continued.*For the position of any article, *see* Index.

Order.	Articles.	Rate of Duty.		
		£	s.	d.
10	Carriages on <i>four</i> Wheels and Springs, intended to be drawn by cattle on ordinary roads each	12	0	0
	Glaziers' Diamonds ad valorem	10	per cent.	
	Halters "	12½	per cent.	
	Saddlery and Harness of every description "	"		
	Whips and Whipthongs "	"		
11	Boats and Boat Oars "	"		
	Cables—Chain "	"		
	Lamps—Ships' Signal "	"		
	" " Binnacle "	"		
	Ships' Sheaves, Blocks, Deadeyes, Rings, Thimbles, Sail Canvas, Shackles, Dead Lights, Anchors, Chains, Cables, Signal and Binnacle Lamps, and Compasses "	"		
12	Architraves made of Wood "	20	per cent.	
	Bricks—Building "	12½	per cent.	
	" Fire "	"		
	Cements—Mineral per cwt.	0	0	9
	Doors made of Wood ad valorem	20	per cent.	
	Gilt Mouldings made of Wood for Picture Frames "	12½	per cent.	
	Sashes made of Wood "	20	per cent.	
	Sash-weights per cwt.	0	1	6
	Skirtings made of Wood ad valorem	20	per cent.	
	Slates—Roofing and Flagging "	12½	per cent.	
	Blinds—Venetian "	"		
13	Furniture, manufactured of Wood "	"		
	Lamps of all kinds, including Chandeliers and Gasaliers "	"		
	Workboxes and Desks "	"		
14	Acid—Tartaric per lb.	0	0	4
	Alkali—Soda, Carbonate of "	0	0	1
	" " Crystals "	0	0	0½
	Cream of Tartar ad valorem	12½	per cent.	
	Drugs, Druggists' and Apothecaries' Wares and Chemicals of every description, not otherwise charged or otherwise exempted from duty "	"		
	Epsom Salts "	"		
	Ink (except printing) "	"		
	Lead—Red per lb.	0	0	0½
	" White "	0	0	0½
	Matches—Lucifer per cubic foot	0	1	0
	" Wax Vestas "	0	3	0
	Medicinal and Perfumed Oils ad valorem	12½	per cent.	
	Naphtha per gallon	0	1	0
	Opium per lb.	1	0	0
	Paints of every description "	0	0	0½
	Sheep Dip ad valorem	10	per cent.	
	Spirits—Methylated, taken as proof (containing not less than 10 per cent. of methyl alcohol) per gallon	0	3	0
	And so in proportion for any quantity not less than one-sixth of a gallon			
	Spirits of Tar "	0	0	6
	Turpentine per gallon	0	1	0

IMPORT DUTIES—continued.

For the position of any article, see Index.

Order.	Articles.	Rate of Duty.
		£ s. d.
14	Varnish and Polish of all kinds per gallon	0 1 6
15	Blankets ad valorem	12½ per cent.
	Carpets and Carpeting of every description "	"
	Rugs—Hearth, of every description "	"
	" Woollen "	"
	Tweeds of every description "	"
	Cloth of every description not otherwise enumerated "	"
	Manufactures of Cotton, Linen, and Wool, not otherwise enumerated "	"
16	Silks, Satins, and Velvets, of every description "	"
17	Forfar and Grey Calicoes "	"
	Manufactures of Cotton, Linen, and Wool, not otherwise enumerated "	"
	Rugs—Cotton and Woollen "	"
	Wadding "	"
18	Drapery of every description not otherwise enumerated "	"
	Haberdashery of all kinds "	"
19	Apparel of all kinds "	"
	Boots, Shoes, and Goloshes "	"
	Feathers of every description "	"
	Furs of every description "	"
	Gloves—Kid of every description, and all other Gloves manufactured from skins "	"
	Hats and Caps of every description "	"
	Hosiery of every description "	"
	Millinery of all kinds "	"
	Umbrellas "	"
20	Bagging, manufactured from Hemp, Jute, and Grey Calicoes "	"
	Bags manufactured from Hemp, Jute, or Cotton "	"
	" Woolpacks each	0 0 4
	Canvas for Sails ad valorem	12½ per cent.
	Coir matting "	"
	Matting of every description and manufacture "	"
	Oil-cloth, Oil-baize, Linoleum, and other similar manufactures "	"
	Twine of every description per lb.	0 0 1
	Whip-cord and other Cords "	0 0 1
21	Bacon "	0 0 2
	Beef per 100 lbs. gross	0 1 6
	Butter per lb.	0 0 2
	Cheese "	0 0 2
	Fish, packed in tin ad valorem	12½ per cent.
	" Dried per lb.	0 0 1
	" Pickled, in barrels or kegs ad valorem	12½ per cent.
	Hams per lb.	0 0 2
	Honey "	0 0 2
	Isinglass ad valorem	12½ per cent.
	Mutton per 100 lbs. gross	0 1 6
	Pork ad valorem	10 per cent.
22	Almonds per lb.	0 0 2
	Arrowroot "	0 0 2
	Biscuits—Fancy "	0 0 2

IMPORT DUTIES—*continued.*For the position of any article, *see* Index.

Order.	Articles.						Rate of Duty.		
							£	s.	d.
22	Biscuits—Plain	...	...	...	...	per lb.	0	0	1
	Confectionery	...	...	...	...	"	0	0	2
	Confectionery Ornaments	...	...	...	...	ad valorem	12½ per cent.		
	Flour—Wheaten	...	...	...	...	per 100 lbs.	0	1	3
	" Corn	...	...	...	...	per lb.	0	0	1
	Fruits—Fresh—viz., Apples, Pears, Plums, Quinces, Peaches, Apricots, Cherries, Gooseberries, Raspberries, Currants, and Strawberries						0	1	0
	" Dried	...	...	...	...	per lb.	0	0	2
	" Candied, Bottled and Canned; also Peels	...	...	...	...	"	0	0	3
	Glucose	...	...	...	...	per cwt.	0	6	0
	Jams, Jellies, and Preserves	...	...	...	...	per lb.	0	0	1
	Grain and Pulse:—								
	Barley	...	...	...	...	per 100 lbs.	0	0	10
	" Patent	...	...	...	...	ad valorem	12½ per cent.		
	" Pearl and Scotch	...	...	...	...	per lb.	0	0	0½
	Beans	...	...	...	...	per 100 lbs.	0	0	10
	Maize	...	...	...	...	"	0	0	10
	Malt	...	...	...	...	per bushel	0	1	0
	Oats	...	...	...	...	per 100 lbs.	0	0	10
	Peas	...	...	...	...	"	0	0	10
	" Split	...	...	...	...	per lb.	0	0	0½
	Pulse	...	...	...	...	per 100 lbs.	0	0	10
	Rice	...	...	...	...	per lb.	0	0	1
	Sharps	...	...	...	...	per 100 lbs.	0	0	10
	Wheat	...	...	...	...	"	0	0	10
	Not otherwise enumerated	...	...	...	...	"	0	0	10
	Groats—Patent	...	...	...	...	ad valorem	12½ per cent.		
	Liquorice	...	...	...	...	per lb.	0	0	2
	Macaroni	...	...	...	...	"	0	0	2
	Maizena	...	...	...	...	"	0	0	1
	Molasses	...	...	...	...	per cwt.*	0	3	6
	Nuts (except cocoanuts)	...	...	...	...	per lb.	0	0	2
	Oatmeal	...	...	...	...	"	0	0	0½
	Onions	...	...	...	...	per cwt.	0	1	0
	Potatoes	...	...	...	...	"	0	0	6
	Sago	...	...	...	...	per lb.	0	0	2
	Sugar Candy	...	...	...	...	"	0	0	1
	" Crushed	...	...	...	...	"	0	0	1
	" Loaf	...	...	...	...	"	0	0	1
	" all other kinds	...	...	...	...	per cwt.*	0	6	0
	Tapioca	...	...	...	...	per lb.	0	0	2
	Treacle	...	...	...	...	per cwt.	0	3	6
	Vermicelli	...	...	...	...	per lb.	0	0	2
	Walnuts and other Nuts	...	...	...	...	"	0	0	2
23	Ale, Beer, and Porter, of all sorts, in wood						0	0	9
	" " " " " " in bottle	...	...	...	...	"	0	1	3
	(Six reputed quarts, or 1 dozen reputed pints, to be taken as a gallon.)								

* And so in proportion for any greater or less quantity than 1 cwt., not being less than 28 lbs.

IMPORT DUTIES—*continued.*For the position of any article, *see* Index.

Order.	Articles.	Rate of Duty.
		£ s. d.
23	Capers ad valorem	12½ per cent.
	Chicory per lb.	0 0 4
	Cider and Perry, in wood per gallon	0 1 3
	„ „ „ in bottle „	0 1 6
	Cinnamon per lb.	0 0 4
	Cloves „	0 0 4
	Cocoa and Chocolate „	0 0 3
	Coffee—Green „	0 0 3
	„ Roasted or Ground „	0 0 4
	Essence of Lemon ad valorem	12½ per cent.
	Ginger—Dried, Whole, or Ground per lb.	0 0 4
	Hops „	0 0 2
	Limejuice ad valorem	12½ per cent.
	Mustard per lb.	0 0 2
	Nutmegs „	0 0 4
	Pepper—Black and White „	0 0 2
	„ Red ad valorem	12½ per cent.
	Perfumery and Perfumed Oils... .. „	„
	Pickles, in bottles, reputed quarts per dozen	0 3 0
	„ „ „ pints „	0 2 0
	„ „ „ half-pints „	0 1 4
	Salt per cwt.	0 1 6
	Saltpetre ad valorem	12½ per cent.
	Sauces, in bottle, reputed quarts per dozen	0 4 0
	„ „ „ pints „	0 3 0
	„ „ „ half-pints „	0 2 0
	„ „ „ quarter-pints... .. „	0 1 6
	And so in proportion for any greater or less quantity than a dozen reputed quarts, pints, or half-pints.	
	Sauces, in bulk „	0 3 0
	Spices of all kinds per lb.	0 0 4
	*Spirits—Perfumed per gallon	1 4 0
	„ Brandy, Cordials, and all other Liquors or Strong Waters, Geneva, Rum, or Whisky „	0 15 0
	Spirituos Compounds, no allowance for under proof „	0 15 0
	Tea per lb.	0 0 3
	Tobacco—Manufactured „	0 3 0
	„ Unmanufactured „	0 2 0
	„ Cigars and Cigarettes „	0 6 0
	„ Snuff „	0 6 0
	Vinegar per gallon	0 0 9
	Wines, in wood „	0 6 0
	„ in bottle „	0 8 0
	„ sparkling „	0 10 0
	(Six reputed quarts, or one dozen reputed pints, to be taken as a gallon.)	
24	Candles per lb.	0 0 2
	Combs ad valorem	12½ per cent.

* And so in proportion for any greater or less quantity than a gallon, not being less than one thirty-second part of a gallon. All spirits under proof to pay duty as if proof.

IMPORT DUTIES—*continued.*For the position of any article, *see* Index.

Order.	Articles.						Rate of Duty.		
							£	s.	d.
24	Glue	...	...	...	...	per lb.	0	0	1
	Hides and Skins, dressed in any manner *	...	...	...	...	ad valorem	12½	per cent.	
	Lard	...	...	...	...	per lb.	0	0	2
	Leather, and all goods manufactured therefrom in whole or in part, not otherwise enumerated	...	...	...	...	ad valorem	12½	per cent.	
	Soap—Perfumed and Fancy	...	...	...	...	per lb.	0	0	3
	„ Other	...	...	...	...	„	0	0	1
25	Bark	...	...	...	...	ad valorem	12½	per cent.	
	Basketware and Wickerware, lined or unlined	...	...	...	...	„	0	„	2
	Blue	...	...	...	...	per lb.	0	0	2
	Bran	...	...	...	...	per 100 lbs.	0	0	10
	Tubs	...	...	...	...	ad valorem	12½	per cent.	
	Casks	...	...	...	...	„	„	„
	Handles—Axe, Fork, Shovel, Spade, or Scythe	...	...	...	...	„	10	per cent.	
	„ Broom, Mop, or Rake	...	...	...	...	„	12½	per cent.	
	Hay	...	...	...	...	„	„	„
	Hemp, manufactured for Bagging	...	...	...	...	„	„	„
	Jute, manufactured for Bagging	...	...	...	...	„	„	„
	Linseed	...	...	...	...	per lb.	0	0	0½
	Meal—Linseed	...	...	...	...	„	0	0	0½
	Paper—Printing, white and coloured, without printing or ruling thereon, imported in original wrappers and untrimmed edges, as it leaves the mill	...	...	...	...	ad valorem	5	per cent.	
	„ Room	...	...	...	...	„	12½	per cent.	
	„ Wrapping, except for fruit	...	...	...	...	„	„	„
	„ Bags, without printing thereon	...	...	...	...	„	„	„
	Pollard	...	...	...	...	per 100 lbs.	0	0	10
	Seeds—Canary, Hemp, Linseed, and Rape	...	...	...	...	per lb.	0	0	0½
	„ Carraway	...	...	...	...	ad valorem	12½	per cent.	
	Starch	...	...	...	...	per lb.	0	0	1
	Timber, under 3 inches	...	...	...	...	per 100 sup. ft.	0	2	6
	„ Boards, planed, of every description, including tongued and grooved	...	...	...	...	„	0	5	0
	Firewood	...	...	...	...	ad valorem	12½	per cent.	
	Varnish and Polish of all kinds	...	...	...	...	per gallon	0	1	6
26	Oil—Kerosene	...	...	...	...	„	0	1	0
	„ Tar	...	...	...	...	„	0	1	3
	„ Of all kinds (not otherwise enumerated)	...	...	...	...	„	0	1	3
28	Coals	...	...	...	...	per ton	0	1	0
	Coke	...	...	...	...	„	0	1	0
29	Bottles, quarter-pint and under	...	...	...	...	ad valorem	12½	per cent.	
	„ Fancy, and Decanters*	...	...	...	...	„	„	„
	Bricks, Bath	...	...	...	...	„	„	„
	Chinaware of every description	...	...	...	...	„	„	„
	Crockeryware of every description	...	...	...	...	„	„	„
	Earthenware Chimney Pots	...	...	...	...	„	„	„

* See *Exemptions.*

IMPORT DUTIES—continued.

For the position of any article, see Index.

Order.	Articles.	Rate of Duty.
		£ s. d.
29	Earthenware of every description ad valorem	12½ per cent.
	Glass—Plate, Crown, Sheet, and Glass of every description, except Glassware	"
	" Silvered	"
	Glassware	"
	Grindstones	"
	Jars for Jam—Glass or Earthenware	"
	Lithographic Stones	10 per cent.
	Looking Glasses	12½ per cent.
	Pipes and Tiles—Draining	"
	" Earthenware for conveyance of water	"
	Plaster of Paris	"
	Tiles—Flooring and Draining	"
	" Kiln	"
	Whiting per cwt.	0 0 9
31	Jewellery of Gold or Silver, whole or part, and Fancy Goods and Trinkets of every description not otherwise enumerated ad valorem	20 per cent.
	Plate—Gold and Silver, of every description	"
32	Brassware	12½ per cent.
	Copperware	"
	Buckets each	0 0 3
	Iron Castings—Rough and retorts per cwt. gross	0 1 6
	" Bolts and Nuts per cwt.	0 2 6
	" Galvanized* Piping, Ridge Caps, or Spouting ad valorem	12½ per cent.
	" Pots	"
	" Rivets	"
	" Tanks	"
	" Wire (not otherwise specified)	"
	" Wire Rope (galvanized)	"
	Ironmongery	"
	Lead—Milled or Sheet per cwt.	0 2 6
	" Piping ad valorem	12½ per cent.
	Nails—Iron, except Screw Nails per cwt. gross	0 2 6
	Ovens—Camp ad valorem	12½ per cent.
	Plated Ware	20 per cent.
	Plough Traces	12½ per cent.
	Screw Nails	"
	Spouting—Galvanized Iron and Zinc	"
	Zinc—Galvanized,* whether Sheet, Piping, Ridge, Caps, or Spouting	"
34	Seeds—Agricultural	"
35	Blacking	"
	Bridges—Iron	"
	Brooms—Hair, and all other Brooms and Brushes	"

* See Exemptions.

IMPORT DUTIES—continued.

For the position of any article, see Index.

Order.	Articles.	Rate of Duty.
35	Hardware of every description, Mixed Metals, Brass, Copper, or other Metals ad valorem	12½ per cent.
	Holloware, of Iron only "	"
	Oilmen's Stores of all kinds, except Pickles, Sauces, and Oils "	"

NOTE.—All goods subject to duty by cubic measure to be measured outside the package, and all packages of and under half a cubic foot to pay duty as if half a cubic foot, and all packages over half a cubic foot, but not exceeding one cubic foot to pay duty as if one cubic foot.

All goods, except Sugar and Molasses, subject to Duty at per hundred pounds, or per hundredweight, or per ton, to pay duty on gross weight, and on fractional parts of a quarter of a hundred pounds as if twenty-five pounds, or of a quarter of a hundredweight as if twenty-eight pounds, and so in proportion.

No allowance in weight or measure to be made for exempt articles used in packing goods subject to Duty.

DUTIES ON UNSPECIFIED ARTICLES.

All goods not enumerated in the foregoing Table of Duties or in the following List of Exemptions ad valorem 12½ per cent.

Goods sent to other places with the sanction of proper Officer of Customs for Repairs or Renovation to pay on return on the cost of such repairs or renovation, except on Free Goods " "

Exemptions.

Order.	Articles.	Order.	Articles.
1	Books—Printed Bookbinding—Cloth and Leather Magazines, Reviews, and Pamphlets Maps and Charts Music—Printed Millboards Newspapers Scale Boards and School Slates	6	Jewellers' and Watchmakers' Tools
2	Bells, Harmoniums, and Organs, specially imported for Churches or for Chapels	9	Agricultural and Horticultural Tools and Implements not otherwise enumerated
3	Atlases, Paintings, and Engravings for Public Institutions Works of Art for Public Institutions (except Statues, Busts of Marble, Bronze, Iron, Alabaster or Plaster of Paris, Paintings, Drawings, Specimens of Sculpture, Cabinets of Coins, Medals, Gems, and Antiquities)		Anvils Bellows—Blacksmiths' Boiler-plates, and raw material including Boiler Mountings used in Boiler-making, not including Bolts and Screws exempt
6	Clocks, specially imported for Churches or Chapels Instruments—Scientific, Optical, and Surgical		Engine Fittings, viz.:—Brass Cocks, Flax Packing and Asbestos, Injectors, Iron, Brass, and Glass Tubing, India-rubber Sheeting, Lubricators, Steam Gauges, Valves, Springs, and Water Gauges Engines—Hot Air, Gas, Steam, and Electric Engineers' Machines and Tools Forks, Agricultural Knives—Putty, Shoemakers', Hay, Saddlers', and Pruning Machinery for Destruction of Rabbits, Rabbit Traps or similar articles

IMPORT DUTIES—*continued.*

Exemptions—continued.

For the position of any article, *see* Index.

Order.	Articles.	Order.	Articles.
9	Machinery not worked by Hand or not otherwise enumerated Machines—Sewing of every description Sheepshears Mould Boards Moulds—Shares Spades and Shovels Tools—Boring and Edge, and all Tools and Implements for manufacturing purposes not otherwise enumerated Tools—Engineers', Turners', and Watchmakers' Traction Engines and their Carriages Windmills	14	Logwood Manures of every description Phosphorus Sulphur Soldering Fluid Sulphate of Magnesia and Copper Sumac Tannin and Tannic Acid Terra Japonica Valonia Vegetable Black
10	Arms—Cart and Carriage Axles Boxes Carriage Shafts, Spokes, Naves, and Felloes (or poles) Saddlers' Materials " Ironmongery (not plate)	15	Woollen Waste
11	Whaling Instruments and Gear of every description	16	Mill Silk Silk—Unmanufactured
13	Cabinetmakers' and Upholsterers' Materials Globes Veneer Wood	17	Cotton—Candle " Waste
14	Acid—Carbolic " Citric " Muriatic " Sulphuric Alkali—Soda, Ash " " Caustic " " Silicate of " " Pearlash " " Potash Alum Arsenic—Crude Bluestone Carbolic Powder Chloralum Copperas Dyewoods and Dyestuffs, for manufacturing purposes only Guano Ink—Printing Kreosote—Crude Lamp Black Ivory Black—Unmanufactured Lime—Carbolate of " Chloride of	19	Regalia, etc.—Friendly Societies
		20	Bags—Gunny, Corn, Flour, Bran, and Ore " Empty, on proof to the Collector of Customs that they have been used in the export of Tasmanian produce Coir—Yarn " Unmanufactured Cordage and Rope Cornsacks Felt for Sheathing Haircloth for Hopkilns Harvest Yarn Oakum and Junk Rope Yarn Shoe Thread
		21	Fish—Fresh
		22	Fruit—Grapes " Lemons " Oranges " Pineapples Molasses—Raw, for manufacturing purposes, rendered unfit for human consumption Nuts—Cocoa Vegetables (not otherwise enumerated)
		23	Salt, Rock
		24	Bone Dust Bones Bristles—Unmanufactured Flock—Woollen Hair—Unmanufactured Hides and Skins of every description, raw and unmanufactured

IMPORT DUTIES—*continued.**Exemptions—continued.*For the position of any article, *see* Index.

Order.	Articles.	Order.	Articles.
24	Leather—American Leather Cloth „ Viz.:—Morocco, Levant, Glove, Kid, Patent Calf, Goat, Coloured, Roan, Calf Kid, Mock Kid, Glacé Kid, Enamelled Hide for buggy tops, and Dash Leather	26	Oil-cake Wax—Paraffine and Mineral
	Stearine	29	Bottles, not being Fancy Bottles or Decanters, and being over one-quarter pint imperial measure
	Tallow, Suet, Grease		Chalk
	Whalebone, Whalefins, from the Whale Fisheries		Clay—Fire, Lumps
	Wool—Unmanufactured		„ „ Unmanufactured
25	Bass—Unmanufactured		„ Pipe „
	Board—Mill, Paste, and Straw		Emery Cloth, Powder, Paper, and Sandpaper
	„ Uncut Card		Granite in rough block
	Boxes and Cases—Empty, on proof to the Collector of Customs that they have been used in the export of Tasmanian produce		Marble in rough blocks
	Cane		Millstones
	Casks—Empty, on proof to the Collector of Customs that they have been used in the export of Tasmanian produce		Paper—Glass and Sand
	Corks, and Cork Unmanufactured		Pipeclay—Unmanufactured
	Cotton—Raw, Waste, Wick, and Candle		Potters' Materials, viz.:—Litharge, China Clay, Cornish Stone, Felspar, Manganese, and Oxide of Cobalt
	Cocoa Fibre and Nuts		Sand for Moulding
	Flax—Unmanufactured		Slate in block
	Hemp and Jute—Unmanufactured		Stone in rough block
	Indiarubber Antirattlers and Buffers		Tablets—Memorial
	Kapok		Windows—Memorial, imported for Churches and Chapels
	Flock—Cotton	30	Ice
	Linseed Oilcake	31	Bullion
	Myrobalans		Coin
	Paper for Fruit Wrapping (not exceeding 8in. by 10in.)		Gold Bars
	Pitch		„ Coin
	Pulu		„ Dust
	Rattans—Split or Unsplit		Silver—Bar, Ingot, or Sheet
	Resin	32	Antimony, in Ingots
	Shellac		Brass—Sheet and Rolled
	Tar		Copper or Yellow Metal—Rods, Bolts, or Sheathing and Nails
	Timber—In Log and sawn, 3 in. and over		Copper, Brass, Bronze, or Zinc—Ingots, Sheets, or Plates
	Tow		Galvanized Wire Rope
26	Oil—From the Whale Fisheries		Iron—Rod, Bar, Hoop, Sheet, Plate, and Pig
	„ Black		„ Fencing
	„ Coconut, Palm Refuse		„ Galvanized, sheet
	„ Cod and Sod, for tanning purposes		„ Pipes, not being galvanized
			Lead—Pig, Ore, and Scrap
			Muntz Metal
			Nails of Yellow Metal or Copper
			Ores of all kinds of metals
			Railway Rails, etc. (see Order 35)
			Solder
			Steel—Unmanufactured

IMPORT DUTIES—*continued.**Exemptions—continued.*For the position of any article, *see* Index.

Order.	Articles.	Order.	Articles.
32	Tinfoil Tin and Tin Plates—Unmanufactured Wire—Fencing „ Binding for Agricultural Machinery „ Netting—Rabbit Proof (being 3ft. to 4ft. wide, 1½in. and 1¾in. mesh, and 17 gauge) Yellow Metal, Sheathing, and Nails Zinc, Sheet or Plates	35	Permanent-way material and Rolling Stock for use on Railways and Tramways, consisting of Rails, Fish-plates, and Bolts, Spikes and other fastenings, Springs, Wheels, and Axles and Ties Printing Presses and Materials „ Type
33	Animals—Living, of every description Poultry	36	Ballast Passengers' Baggage and Cabin Furniture, except Musical Instruments and Plate, arriving in the colony at any time within six months before or after the owner thereof; also Household Furniture and Effects arriving within six months before or after the owner thereof, the same having been in the owner's use for a period of not less than six months before the removal to Tasmania, such Furniture and Effects not being for sale Specimens of Natural History, Mineralogy, or Botany
34	Bulbs, Plants, Shrubs, and Trees, of every description Seeds for Horticultural purposes		
35	Grindery used exclusively in Boot or Shoe trade Hatters' Materials, viz.:—Felt Hoods, Shellac, Hat Ventilators, Linings, Hatters' Galloons and Spall Boards, also Silks, Plush, and Calico prepared for and used exclusively by Hatters		

NOTE.—All goods imported for the use of Her Majesty's Government, and all goods the produce of Tasmania, are also exempt from duty.

EXPORT DUTIES.

Nil.

EXCISE.

							£	s.	d.
Order 23.—Beer	...	...	...	...	...	per gallon	0	0	3
„ Spirits	...	...	...	...	...	„	0	10	0

TARIFF OF NEW ZEALAND.

(Corrected to the 29th August, 1889.)

IMPORT DUTIES.

For the position of any article, *see* Index.

Order.	Articles.	Rate of Duty.
1	Cards—Playing Desks	£ s. d. 0 0 6 20 per cent.

IMPORT DUTIES—*continued.*For the position of any article, *see* Index.

Order.	Articles.	Rate of Duty.		
		£	s.	d.
1	Handbills, Programmes and Circulars, Playbills, and Printed Posters ad valorem	20	per cent.	
	Stationery, Manufactured: viz., Account Books, Billheads, Cheques, Labels, and other Printed and Ruled Paper, Blank and Head-line Copy-books, Drawing-books, Blotting-pads, Sketch-books, Manifold Writers, Albums, Diaries, Plain and Faint-lined Ruled Books, and other Printed or Lithographed Stationery "	25	per cent.	
	Stationery, not otherwise enumerated "	15	per cent.	
2	Musical Instruments: viz., Organs, Harmoniums, and Pianofortes, and Parts of either (except action-work not made up) "	20	per cent.	
	Musical Instruments, not otherwise enumerated "	15	per cent.	
3	Drawings "			
	Paintings—Framed or Unframed "			
	Pictorial Calendars, Show-cards, and other Pictorial Lithographs and Prints "	25	per cent.	
	Pictures and Engravings "	15	per cent.	
	Statues, Statuettes, Casts, and Bronzes "	20	per cent.	
4	Picture Frames "	15	per cent.	
	Pipes—Tobacco "			
	Turnery "			
5	Fireworks, not otherwise enumerated "	20	per cent.	
	Toys and Fancy Goods "			
6	Clocks "			
	Magic Lanterns and Dissolving-view Apparatus and Slides "			
	Watches "			
8	Arms, Fire: viz., Fowling Pieces, Rifles, etc. "	15	per cent.	
	Caps—Percussion per 1,000	0	1	0
	Cartridges and Cartridge Cases ad valorem	15	per cent.	
	Powder—Sporting per lb.	0	0	6
	Shot per cwt.	0	10	0
9	Bellows, other than Forge ad valorem	15	per cent.	
	Blocks—Wooden Tackle "	20	per cent.	
	Boilers (Land and Marine) "			
	Brass Cocks, Valves, Unions, Lubricators, and Whistles "			
	Chaff-cutters, Corn-crushers, and Corn-shellors "			
	Crab-winches, Cranes not otherwise enumerated, Capstans and Windlasses "			
	Cutlery "			
	Lawn Mowers "			
	Machinery, not otherwise enumerated "			
	Pumps and other Apparatus for raising water, not otherwise enumerated "			
	Steam Engines and Parts of, not otherwise enumerated "			
	Weighbridges for carts (iron) "			
	Weighing Machines "	15	per cent.	
10	Bicycles, Tricycles, and the like vehicles "	20	per cent.	
	Carriages, Carts, Drays, and Perambulators, and Wheels for the same "			

IMPORT DUTIES—*continued.*

For the position of any article, *see* Index.

Order.	Articles.	Rate of Duty.		
		£	s.	d.
10	Carriage Shafts, Spokes, Felloes, and Naves or Hubs, Bent Wheel-rims, and other Bent Carriage Timber, not otherwise enumerated ad valorem	15	per cent.	
	Harness "	20	per cent.	
	Saddlery "			
	Whips "	15	per cent.	
12	Cement per barrel	0	2	0
	Doors—Plain each	0	2	0
	" Glazed with Ornamental Glass "	0	4	0
	Firebricks not otherwise enumerated, Fireclay ground, and Fireclay Goods ad valorem	20	per cent.	
	Sashes—Plain per pair	0	2	0
	" Glazed with Ornamental Glass "	0	4	0
13	Furniture and Cabinetware, not otherwise enumerated, and other than Iron ad valorem	25	per cent.	
	Lamps, Lanterns, and Lamp Wick "	15	per cent.	
	" Globes and Chimneys for "			
	Upholstery, not otherwise enumerated "	25	per cent.	
14	Acid—Acetic per lb.	0	0	1½
	" Tartaric "	0	0	1
	Baking Powder ad valorem	15	per cent.	
	Blacking and Boot Gloss "	20	per cent.	
	Blacklead "			
	Cream of Tartar per lb.	0	0	1
	Drugs and Druggists' Sundries, and Apothecaries' Wares ... ad valorem	15	per cent.	
	Essences—Flavouring "			
	Glycerine—Refined "			
	Ink—Writing "	20	per cent.	
	Matches and Vestas—Wooden Matches— For every gross of boxes, containing in each box—			
	60 matches and under	0	1	0
	61 to 100 matches	0	2	0
	Over 100 matches—for every 100 or fraction thereof ...	0	2	0
	Matches and Vestas—Wax Vestas— For every gross of boxes containing in each box—			
	Under 100 matches—"Plaid Vestas" in cardboard boxes	0	1	4
	Ditto "Pocket Vestas" in tin or other boxes	0	2	0
	200 matches or under—"Sportman's," "Ovals," and "No. 4 Tins Vestas"	0	5	6
	Other kinds, for every 100 matches or fraction thereof	0	2	9
	Medicines—Patent and Proprietary, and medicinal and other preparations or compounds not otherwise enumerated, recommended to the public under any general name or title as specifics for any disease or affection whatever affecting the human or animal bodies ad valorem	25	per cent.	
	Naphtha per gallon	0	0	6
	Opium per lb.	2	0	0
	Paints and Colours—Ground in oil per cwt.	0	2	0
	" " Mixed ready for use "	0	4	0

IMPORT DUTIES—*continued.*For the position of any article, *see* Index.

Order.	Articles.		Rate of Duty.		
			£	s.	d.
14	Photographic Chemicals, not otherwise enumerated	... ad valorem	15 per cent.		
	Powder and Polish—Furniture, Knife, and Plate ...	... "	0 " 0		
	Soda—Ash ...	... per cwt.	0	1	0
	" Carbonate and Bicarbonate ...	... "	0	1	0
	" Crystals ...	... "	0	2	0
	Spirits, Methylated ...	per liquid gallon	0	1	0
	Sulphur ...	per cwt.	0	0	6
	Turpentine ...	per gallon	0	0	6
	Washing Powder ...	ad valorem	20 per cent.		
15	Bags, Carpet ...	...	"	
	Blankets ...	...	"	
	Carpets ...	...	15 per cent.		
	Drugget ...	...	"	
	Rugs—Woollen ...	...	20 per cent.		
	" not otherwise enumerated ...	...	"	
16	Yarns, not otherwise enumerated	...	"		
	Silks, Satins, Velvets, Plushes, not otherwise enumerated, composed of Silk mixed with any other material, in the piece ...	...	25 per cent.		
17	Bags—Calico, Forfar, Hessian, and Linen ...	...	20 per cent.		
	Cotton—Counterpanes ...	...	"	
	" Piece Goods, not otherwise enumerated ...	...	10 per cent.		
18	Rugs—Cotton ...	...	20 per cent.		
	Drapery, not otherwise enumerated ...	...	"	
19	Haberdashery, not otherwise enumerated ...	...	"	
	Hair Brushes and Combs ...	...	"	
20	Apparel and Ready-made Clothing, and all articles not otherwise enumerated, made up wholly or in part from Textile or other Piece Goods ...	...	25 per cent.		
	Boot and Shoe Vamps, and Uppers and Laces ...	...	20 per cent.		
	Boots, Shoes, Slippers, Goloshes, Clogs, and Pattens, not otherwise enumerated ...	...	"	
	Caps—(Apparel) ...	...	"	
	Collars and Cuffs, of Paper or other materials ...	...	25 per cent.		
	Dressing Cases ...	...	20 per cent.		
	Feathers—Ornamental, including Ostrich ...	...	25 per cent.		
	Furs ...	...	"	
	Hats ...	...	20 per cent.		
	Hosiery, not otherwise enumerated ...	...	"	
	Millinery: viz., Trimmed Hats, Caps and Bonnets ...	...	"	
	" not otherwise enumerated ...	...	"	
	Shawls ...	...	"	
	Umbrellas, Parasols, and Sunshades ...	...	"	
	Walking Sticks ...	...	"	
	Bags—Flour ...	...	"	
	" and Bagging, not otherwise enumerated ...	...	15 per cent.		
	Sacks other than Corn Sacks ...	...	"	
	Cordage and Rope, not otherwise enumerated ...	...	20 per cent.		
	Floor Cloth ...	...	15 per cent.		
	Mats and Matting ...	...	"	
	Nets and Netting ...	...	20 per cent.		

IMPORT DUTIES—*continued.*For the position of any article, *see* Index.

Order.	Articles.	Rate of Duty.		
		£	s.	d.
20	Tarpaulins, Tents, Rick and Waggon Covers, Aprons and Elevators for Reaping and Binding Machines ... ad valorem	15	per cent.	
	Textile Piece Goods other than Cotton or Silk	20	per cent.	
	Twine—Binder	15	per cent.	
	„ not otherwise enumerated	20	per cent.	
	Woolpacks per doz.	0	2	6
	„ of kind known as Woolpockets*	0	0	6
21	Fish—Dried, Pickled, or Salted, not otherwise enumerated ... per cwt.	0	10	0
	„ Potted and Preserved per lb. †	0	0	2
	„ Oysters, Preserved „ †	0	0	2
	„ Paste ad valorem	20	per cent.	
	„ Sardines per lb. †	0	0	2
	Honey „	0	0	2
	Isinglass ad valorem	15	per cent.	
	Meats—Potted and Preserved „	20	per cent.	
	Bacon and Hams per lb.	0	0	2
	Milk—Preserved ad valorem	20	per cent.	
	Provisions not otherwise enumerated „	0	0	2
22	Almonds, in Shell per lb.	0	0	2
	„ Shelled, not otherwise enumerated „	0	0	3
	Biscuits—Ships', Plain and Unsweetened ... per cwt.	0	3	0
	„ Other kinds per lb.	0	0	2
	Confectionery: viz., Boiled Sugars, Comfits, Lozenges, Scotch Mixtures, and Sugar Candy ... per lb. †	0	0	2
	„ not otherwise enumerated „ †	0	0	2
	Fruit—Fresh: viz., Apples, Pears, Plums, Cherries, Peaches, Nectarines, Apricots, Quinces, Tomatoes, and Lemons „	0	0	0½
	„ Dried „	0	0	2
	„ Preserved in Juice or Syrup ad valorem	20	per cent.	
	„ Pulp and partially preserved Fruit not otherwise enumerated ... per lb.	0	0	1½
	„ Preserved by Sulphurous Acid „	0	0	0½
	„ Candied Peel „	0	0	5
	Grain and Pulse—Barley per 100 lbs.	0	2	0
	„ of every kind, not otherwise enumerated... .. „	0	0	9
	„ of every kind, when ground or in any way manufactured, not otherwise enumerated „	0	1	0
	„ Pearl Barley per cwt.	0	1	0
	„ Peas, Split „	0	2	0
	„ Maize per 100 lbs.	0	0	9
	„ Malt per bushel	0	2	0
	„ Rice and Rice Flour per cwt.	0	6	0
	„ „ undressed and dressed in bond „	0	4	0
	„ „ manufactured into Starch in bond „	0	2	0
	Jams, Jellies, Marmalade, and Preserves ... per lb. †	0	0	2
	Liquorice ad valorem	15	per cent.	

* Not exceeding measurement of 18 x 21 x 30 inches.

† Or reputed package of that weight, and so in proportion for packages of greater or less reputed weight.

‡ Including internal packages.

IMPORT DUTIES—continued.

For the position of any article, see Index.

Order.	Articles.						Rate of Duty.		
							£	s.	d.
22	Maizena and Corn Flour	...	...	...	per lb.		0	0	0 $\frac{1}{4}$
	Nuts of all kinds (except Cocoanuts)	...	...	...	"		0	0	2
	Olives	...	...	...	ad valorem		20	per cent.	
	Peel—Drained	...	...	...	per lb.		0	0	3
	Saccharine	...	...	...	per oz.		0	5	0
	Sugar	...	...	...	per lb.		0	0	0 $\frac{1}{2}$
	" Glucose	...	...	...	"		0	0	1
	" Treacle and Molasses	...	...	...	"		0	0	0 $\frac{1}{2}$
	Syrups	...	...	...	ad valorem		20	per cent.	
	Vegetables—Fresh, dried, or preserved	...	...	...	"	
23	Aërated and Mineral Waters and Effervescing Beverages	...	...	...	"		0	"	6
	Ale, Beer, and Porter, of all sorts	...	...	...	per gallon*		0	1	6
	Bitters—In bottles, jars, or other vessels packed in cases or	...	...	...		
	other packages	...	...	...	per liquid gallon		0	16	0
	" in bulk	...	...	...	"		0	15	0
	Capers	...	...	...	ad valorem		20	per cent.	
	Caraway Seeds	...	...	...	"		15	per cent.	
	Catsup	...	...	...	"		20	per cent.	
	Chicory	...	...	...	per lb.		0	0	3
	Chocolate and Cocoa	...	...	...	"		0	0	3
	" Confectionery, and all preparations of Chocolate or	...	...	...		
	Cocoa	...	...	...	" †		0	0	3
	Chutney	...	...	...	ad valorem		20	per cent.	
	Cider and Perry	...	...	...	per gallon*		0	1	6
	Coffee—Raw	...	...	...	per lb.		0	0	3
	" Roasted	...	...	...	"		0	0	5
	" Essence of	...	...	...	ad valorem		15	per cent.	
	Cordials—In bottles, jars, or other vessels packed in cases or	...	...	...		
	or other packages	...	...	...	per liquid gallon		0	16	0
	" in bulk	...	...	...	"		0	15	0
	Curry Powder and Paste	...	...	...	ad valorem		20	per cent.	
	Hops	...	...	...	per lb.		0	0	6
	Lime and Lemon Juice, sweetened or aërated	...	...	...	ad valorem		20	per cent.	
	Liqueurs—In bottles, jars, or other vessels packed in cases	...	...	...		
	or other packages	...	...	...	per liquid gallon		0	16	0
	" in bulk	...	...	...	"		0	15	0
	Mustard	...	...	...	per lb.		0	0	2
	Pepper—Cayenne	...	...	...	ad valorem		15	per cent.	
	Perfumery and Toilet Preparations not otherwise enumerated	...	...	...	"		25	per cent.	
	Perfumed Spirits and Cologne Water	...	...	...	per gallon		1	1	0
	Pickles	...	...	...	per doz. pints ‡		0	2	0
	Raspberry Vinegar	...	...	...	ad valorem		20	per cent.	
	Salt, except Rock Salt	...	...	...	per ton		0	10	0
	Sarsaparilla	...	...	...	ad valorem		25	per cent.	
	Sauces	...	...	...	per doz. pints ‡		0	3	0
	Spices, including Pepper and Pimento, unground	...	...	...	per lb.		0 $\frac{3}{4}$	0	2
	" " " ground	...	...	...	"		0 $\frac{3}{4}$	0	4

* Or for six reputed quart or twelve reputed pint bottles.

† Including internal packages.

‡ Or reputed pints, and in same proportion for larger and smaller quantities.

IMPORT DUTIES—continued.

For the position of any article, see Index.

Order.	Articles.	Rate of Duty.		
		£	s.	d.
23	*Spirits and Strong Waters, the strength of which can be ascertained by Sykes' hydrometer—			
	In bottles, jars, or other vessels packed in cases or other packages per proof gallon	0	16	0
	In bulk „	0	15	0
	No allowance beyond 16·5 under proof shall be made for Spirits or Strong Waters of a less hydrometer strength than 16·5 under proof			
	*Spirits and Strong Waters mixed with any ingredient in any proportion exceeding 33 per cent. of proof spirit, and although thereby coming under the designation of patent or proprietary medicines or under any other designation, excepting medicinal tinctures specified in the British Pharmacopœia—			
	In bottles, jars, or other vessels packed in cases or other packages per liquid gallon	0	16	0
	In bulk „	0	15	0
	*Spirits and Strong Waters, sweetened or mixed, when not exceeding the strength of proof—			
	In bottles, jars, or other vessels packed in cases or other packages „	0	16	0
	In bulk „	0	15	0
	Tea per lb.	0	0	6
	Tobacco „	0	3	6
	„ Cigars and Cigarettes „	0	7	0
	„ Unmanufactured, entered to be manufactured in the colony at the time of removal from a bonded warehouse or from any importing ship to any licensed tobacco manufactory for manufacturing purposes only into Tobacco, Cigars, Cigarettes, or Snuff „ †	0	2	0
	Tobacco—Snuff „	0	7	0
	Vinegar per gallon	0	0	6
	Wine—Australian, containing not more than 35 per cent. of proof spirit, verified by Sykes' hydrometer „ ‡	0	5	0
	„ Other than Sparkling and Australian, containing less than 40 per cent. of proof spirit, verified by Sykes' hydrometer... .. „ ‡	0	6	0
	„ Sparkling „	0	9	0
24	Wort—Solid per lb.	0	0	6
	Candles „ §	0	0	2
	Gelatine ad valorem	15	per cent.	
	Glue and Size per lb.	0	0	1½
	Leather Leggings ad valorem	20	per cent.	
	„ Manufactures, not otherwise enumerated „			
	„ Chamois „	15	per cent.	

* Spirits and Strong Waters in cases shall be charged as follows on and after the 1st December, 1888, viz., two gallons and under as two gallons, over two gallons and not exceeding three as three gallons, over three gallons and not exceeding four as four gallons, and so on for any greater quantity contained in any case.

† Until the 31st December, 1891.

‡ Or for six reputed quart or twelve reputed pint bottles.

§ Or reputed package of that weight, and so in proportion for packages of greater or less reputed weight.

IMPORT DUTIES—*continued.*For the position of any article, *see* Index.

Order.	Articles.	Rate of Duty.		
		£	s.	d.
24	Leather Belting and Belt, Harness, Bridle, Legging, and Bag			
	Leather per lb.	0	0	6
	„ Kip (other than East India Kip), Cordovan, Kangaroo (tanned), Levant Cow and Horse Hides „	0	0	3
	„ Buff, split Roans, Persians, Sheepskins or Basils, Lambskins, and Goatskins (dressed) ... „	0	0	2
	„ Not otherwise enumerated, including Sole Leather and East India Kip ... „	0	0	1
	„ Bags ad valorem	20	per cent.	
	„ Cut into shapes ... „			
	„ Cloth Bags ... „			
	Portmanteaus and Travelling Bags ... „			
	Rugs, Opossum ... „			
	Sausage Skins ... „			
	Soap—Common per cwt.	0	5	0
	„ Scented and Fancy ad valorem	25	per cent.	
	„ Powder „	20	per cent.	
	„ Extract of „			
	„ Dry „			
	„ Soft „			
	Stearine per lb.	0	0	1½
25	Baskets and Wickerware ad valorem	20	per cent.	
	Blue per lb.	0	0	2
	Buckets and Tubs, of Wood ad valorem	20	per cent.	
	Chaff per ton	1	0	0
	Corks—Bottling ad valorem	15	per cent.	
	Paper—Wrapping, Brown per cwt.	0	4	0
	„ „ Other kinds, including Cartridge, small hands, and Sugar Paper ... „	0	5	0
	„ Writing, not otherwise enumerated ad valorem	15	per cent.	
	„ Bags, coarse, including Sugar Bags per cwt.	0	7	6
	„ Bags, not otherwise enumerated ad valorem	25	per cent.	
	„ Hangings „	15	per cent.	
	Papier-maché Ware „	20	per cent.	
	Starch per lb.	0	0	2
	Timber—Sawn, Rough 100 ft. sup.	0	2	0
	„ „ Dressed „	0	4	0
	„ Shingles and Laths per 1000	0	2	0
	„ Palings per 100	0	2	0
	„ Posts „	0	8	0
	„ Rails „	0	4	0
	Trunks (other than Iron) ad valorem	20	per cent.	
	Varnish per gallon	0	1	6
	Wax (<i>see</i> under Order 26).			
	Woodenware not otherwise enumerated ad valorem	15	per cent.	
26	Harness Oil and Composition, and Leather Dressing			
	Oil, Mineral per gallon	0	0	6
	„ Olive, in bulk „	0	0	6
	„ Perfumed ad valorem	25	per cent.	
	„ Vegetable, in bulk, not otherwise enumerated per gallon	0	0	6
	„ „ or other, in bottle ad valorem	15	per cent.	

IMPORT DUTIES—*continued*.For the position of any article, *see* Index.

Order.	Articles.	Rate of Duty.		
		£	s.	d.
26	Oil, Not otherwise enumerated	0	0	6
	Wax—Paraffin, Mineral, Vegetable, and Japanese	0	0	1½
29	China, Porcelain, and Parian Ware	20	per cent.	
	Drainage Pipes and Tiles	"		
	Earthenware, Stoneware, and Brownware	"		
	Earthen Flooring and Garden Tiles	"		
	" Gas Retorts	"		
	Filters	"		
	Glass—Crown, Sheet, and Common Window	0	2	0
	" Plate, Polished, Coloured, and other kinds not otherwise enumerated	15	per cent.	
	Glassware	"		
	Greenstone—cut and polished	20	per cent.	
	Looking-glasses	15	per cent.	
	Mantelpieces	20	per cent.	
	Marble, Granite, and other Stone, sawn on not more than two sides, and not dressed or polished	5	per cent.	
	" " and other Stone, dressed or polished, and Articles made therefrom	20	per cent.	
	Putty	0	2	0
	Whiting and Chalk	0	1	0
31	Jewellery	20	per cent.	
	Plate—Gold and Silver	"		
32	Brass Manufactures, not otherwise enumerated	"		
	Composition Piping	0	3	6
	Copper Manufactures, not otherwise enumerated	20	per cent.	
	Gas Pipes—Iron	5	per cent.	
	Iron Columns for Buildings, and other Structural Ironwork	20	per cent.	
	" Doors for Safes and Vaults	"		
	" Galvanized Corrugated Sheets, Screws, and Nails	0	2	0
	" " Sheet and Hoop, plain	0	1	6
	" " Tiles, Ridging, Guttering, and Spouting	20	per cent.	
	" Gates and Gate-posts, Staples, Standards, Straining Posts, and Apparatus	"		
	" Manufactures—Galvanized, not otherwise enumerated	25	per cent.	
	" Nails	0	2	0
	" Pipes and Fittings for same, wrought	5	per cent.	
	" Tanks	0	10	0
	" Tanks of and under 200 gallons	0	5	0
	" Wire for Fencing	0	1	0
	" " (barbed)	0	2	0
	" Work and Wire Work	20	per cent.	
	" Bridges, and Iron Material not otherwise enumerated, which may be specially imported for the construction of Bridges, Wharves, Jetties, or Patent Slips	"		
	Lead, in sheets	0	1	6
	" Piping	0	3	6
	Metal Manufactures, viz.:—			
	Air-gratings Bill-files Blacksmith's Tongs	20	per cent.	ad valorem.
	Ash-pans Brackets Boilers and Furnaces			
	Barrow-wheels Bolts and Nuts —Copper			

IMPORT DUTIES—*continued*.For the position of any article, *see* Index.

Order.	Articles.			Rate of Duty.		
				£	s.	d.
32	Metal Manufactures—<i>continued</i>—					
	Boathooks	Engineers' Forgings,	Mangles			
	Bolt-rings	not otherwise enu-	Marine Engine Cranks			
	Bottle-jacks—Lifting	merated	and Pillars			
	Braces — Wrought-	Fenders	Maul-rings			
	iron	Fire-dogs	Meat-hooks			
	Branch-pipes—Copper	Fire-guards	Monkeys for pile driv-			
	and Brass	Flower-stands	ing			
	Brazed Copper Pipes	Fittings for Pumps	Ornamental Gratings			
	Cake Rollers	Engines and Machin-	Painted and Brass			
	Camp-ovens and	ery, not otherwise	Casings for Engines			
	Three-leg pots	enumerated	Pepper, Malt, Bean,			
	Cast-iron of all sorts,	Garden Reels, Rollers,	and Oat Mills			
	moulded, not	Seats, and Syringes	Picks and Mattocks			
	otherwise enu-	Grates	Pulley-blocks			
	merated	Gridirons	Quarry Mauls and			
	Castings of steel,	Grindstone Fittings	Picks			
	not otherwise enu-	Gun-metal Engine	Quoits			
	merated	Fittings	Railway Chairs, Bolts,			
	Cast-iron Cylinders	Hammers — Napping,	Fastenings, and			
	Cisterns — Wrought-	Quartz, and Spalling	Rail-dogs			
	iron	Hasps and Staples	Rods—Connecting			
	Coal-scoops and	Hat-stands	Roller-skates			
	Scuttles	Heel and Toe Plates	Sack-trucks			
	Contractors' Forg-	Holdfasts	Safes and Boxes—Iron			
	ings	Hook and Eye Hinges	Sash Weights			
	Condensers for salt	Horse-shoes	Shafting, Bright—			
	water and steam-	Horse Rakes and Hay	Wrought-iron			
	engines	Rakes	Sluice-valves—Iron			
	Cork Drawers — Wire	Horse-power Gear	Soldering Irons			
	and Steel	Hydraulic Mains	Stands—Iron			
	Crowbars	Kitchen Ranges and	Stamped Ironware,			
	Crucibles—Black lead	Colonial Ovens	not otherwise enu-			
	Dampers and Frames	Lamp-posts	merated			
	Door-knockers	Leadenware	Stench-traps			
	Door-porters	Letters and Figures—	Troughs			
	Door-scrapers	Wrought-iron or	Truck Wheels			
	Drain-grates and	Steel	Tue-irons—Cast			
	Frames	Levers—Forged	Wedges			
	Drain-gratings	Links—Connecting or	Wheelbarrows—			
	Dumb-bells	Split	Wrought-iron			
	Engine Castings, not	Lifts—Hydraulic	Wheels — Wrought-			
	otherwise enumerated	Manger-rings	iron			
	Metal Ware, Japanned and Lacquered	...	...	ad valorem	25 per cent.	
	Nails—iron...	...	...	per cwt.	0 2 0	
	„ not otherwise enumerated	...	...	„	0 3 0	
	Plated Ware	...	...	ad valorem	20 per cent.	
	Sad Irons	...	...	„	„
	Tinware and Tinsmiths' Furniture, not otherwise enumerated	...	...	„	25 per cent.	
	Waterworks Pipes—Iron	...	...	„	5 per cent.	
	Wire Mattresses and Webbing	...	...	„	20 per cent.	

IMPORT DUTIES—*continued*.

For the position of any article, *see* Index.

Order.	Articles.	Rate of Duty.
32	Zinc Tiles, Ridging, Guttering, and Piping ad valorem	20 per cent.
	„ Manufactures, not otherwise enumerated „	25 per cent.
35	Brooms and Brushes, not otherwise enumerated „	20 per cent.
	Brushware, not otherwise enumerated „	„
	Copying Presses „	15 per cent.
	Hardware, Ironmongery, and Holloware „	20 per cent.
	Powder and Polish—Furniture, Knife, and Plate „	15 per cent.
	Photographic Goods, not otherwise enumerated „	20 per cent.
	Railway and Tramway Plant and Materials, not otherwise enumerated „	„

NOTE.—The word “Iron,” where used in this Schedule, includes steel, or steel and iron combined.

Exemptions.

Order.	Articles.	Order.	Articles.
1	Books—Printed, Papers and Music, not otherwise enumerated	9	Machinery for Oil Refining and Boring
	Charts and Maps		„ for Refrigerating and Preserving Meat
	School Books, Slates, and Apparatus		Machine Saws
3	Paintings, Statuary, and Works of Art, presented to or imported by any Museum, Public Library, or other Public Institution, for use therein, or for Public Exhibition		Machinery for Agricultural Purposes, not otherwise enumerated; also Materials for manufacturing the same, viz.:—Reaper-knife Sections, Fingers, Brass and Steel Springs, and Tilt Rakes, Chaff-cutting Knives, Set Screws, Malleable Castings, Fittings for Threshing Mills, Discs for Harrows, Forgings for Ploughs, Mould-board Plates, and Steel Share Plates cut to pattern, and Skeith Plates
6	Photographic Cameras and Lenses		Machines—Sewing, Knitting, and Kitting
8	Accoutrements for Military Purposes (excepting Uniform Clothing)		Machines—Sodawater
	Powder—Blasting		Ploughs and Harrows
	Swords		Scrub Exterminator
9	Anvils		Scythes
	Axes and Hatchets		Spades, Shovels, and Forks
	Bellows—Blacksmiths’		Steam Engines, non-condensing, the area of whose cylinder or cylinders exceeds 1000 circular inches; and and Condensing Engines, the area of whose cylinders exceeds 2,500 circular inches
	Churns		Steam Boiler Tubes and Bowling’s Expansion Rings
	Engines—Portable and Traction		Tools—Artificers’
	Engineers’ Machine Tools		
	Fire Engines		
	Flour Mills—Patent Porcelain or Steel Roller		
	Forges		
	Gas Engines and Hammers		
	Hydraulic Cranes		
	Locomotives		
	Machinery for Dairying Purposes		
	„ Electric, and Appliances		
	„ for Mining Purposes, including Dredges and Dredging Appliances		

IMPORT DUTIES—*continued.**Exemptions—continued.*For the position of any article, *see* Index.

Order.	Articles.	Order.	Articles,
10	Axles, Axlearms, and Boxes Carriage and Cart-makers' Materials, viz.:—Springs, Mountings, Trimmings, Brass Hinges, Bolts and Nuts, Tacks, Tire Bolts, Shackle Holders, and other Iron Fittings; also Rubber Cloth and American Cloth Carriage and Cart Shafts, Spokes and Felloes in the rough; Elm Hubs; and Poles, if unbent and unplanned Fittings for Perambulators, Bicycles, Tricycles, and the like Vehicles, not otherwise enumerated Hogskins Saddlers' Ironmongery—Hames, and Mounts for Harness; Straining, Surcingle, Brace, Girth and Roller Webs; Collar, Cheek, and Legging Buckles Saddletrees Spokes and Felloes, of hickory	14	Nitrate of Silver Paints, not otherwise enumerated Phosphorus Spirits, after being rendered not potable by manufacture into perfumery or other articles in the colony, in accordance with prescribed regulations Spirits of Tar Strychnine Sulphate of Soda
11	Anchors Ship Chandlery, not otherwise enumerated Ships' Rockets, Blue Lights, and Danger Signals	16	Silk, for flour dressing
12	Building Materials, not otherwise enumerated Firebricks—Silica	17	Calico, white and grey, in the piece Corduroy (cotton), in the piece Cotton Waste Duck, in the piece Forfar, Dowlas, and Flax Sheeting, in the piece (the fair market value of which does not exceed sevenpence the yard) Moleskin (cotton), in the piece Shirtings, coloured cotton, in the piece „ Union, in the piece (the fair market value of which does not exceed sevenpence the yard)
13	Upholsterers' Webbing, Hair Seating, Imitation Hair Seating, Curled Hair, Gimp, Tufts, and Studs	18	Brace Elastic, and Brace Mountings Sewing Cottons, Silks and Threads Silk Twist (shoemakers' and saddlers') Buttons, Braids, Tapes, Wadding, Pins, Needles, and such minor articles required in the making-up of Apparel, Boots, Shoes, Hats, Caps, Saddlery, Umbrellas, Parasols, and Sunshades, as may be enumerated in any Order of the Commissioner, and published in the <i>Gazette</i> Elastic, boot Staymakers' Binding, Eyelet Holes, Corset Fasteners, Jean, Ticks, Lasting, Sateen, and Cotell Tailors' Trimmings, viz.:—Verona and Italian Cloth; Black and Brown Canvas; Buckram; Wadding; Padding; Silk, Worsted, and Cotton Bindings and Braids; Stay Binding; Hessians; Brown Linen; Silesias; Union Body Linings, Jeans; Striped and Checked Drills; Pocketings; and Buckles
14	Acid—Nitric and Pyrogallie Alkali—Pearlash „ Potash and Caustic Potash „ Soda, Caustic Alum Arsenic Borax Cochineal Colours—Artists' Canvas, Brushes, and Pallet Knives Dye-stuffs and Dyeing Materials, crude Essential Oils Gelatine Dry Plates Glycerine, crude Ink—Printing		

IMPORT DUTIES—continued.

Exemptions—continued.

For the position of any article, see Index.

Order.	Articles.	Order.	Articles.
18	Umbrella-makers' Materials, viz.:— Reversible and Levantine Silk Mixtures, of not less than 44 in. in width; Alpaca Cloth, with Border; Zanella Cloth, with Border; Sticks, Runners, Notches, Caps, Ferrules, Cups, Ribs, Stretchers, Tips, and Rings, for use in the making of Umbrellas, Parasols, and Sunshades	24	Gold Size Leather—Morocco, japanned, and enamelled Cloth Skins—Goat, undressed Kangaroo, undressed Seal, undressed
19	Boots, Shoes, and Slippers—Children's, Nos. 0 to 3 Cork Soles Hatters' Silk Plush, Felt Hoods, Shellac, Galloons, Calicoes, and Spale Boards, for Hat Boxes	25	Card or Paste Board, plain, of sizes not less than that known as "royal" Flax and Hemp Gum Arabic and Tragacanth Boots Gutta Percha, not being Wearing Apparel, and not otherwise enumerated Lignum Vitæ
20	Bags—Gunny Blind Webbing and Tape Bunting, suitable only for Ships' Flags Butter and Cheese Cloth Candlewick Coir Corn Sacks Felt for Sheathing Hessians Millboard Sail Cloth Waterproof Material, in the piece Yarn and Coir		Materials for Cardboard Boxes, viz.: —Gold and Silver Paper, plain and embossed, and Gelatine and Coloured Papers, known as "Box Papers" Paper—For Printing purposes only Hand-made or Machine-made Book or Writing, of sizes not less than the size known as "demy" when in original wrappers, and with uncut edges, as it leaves the mill Albumenized Pitch and Tar Resin Tanning Materials, Crude Timber—Ash, unwrought Hickory, " Wax—Bottling Oil—Candlenut Cod Liver Fish, Whale, and Seal, in bulk Palm Rhodium Shale Waste or unrefined Mineral Oil
21	Anchovies—Salted, in casks	26	
22	Almonds—Barbary, Sicily, and French, used in Confectioners' Manufactures Arrowroot Candlenuts and Candlenut Kernels Cocoanuts Groats—Prepared Macaroni and Vermicelli Pea Nuts for manufacture of Oil Sago and Tapioca Treacle and Molasses, when mixed with Bone Black in such proportions and under such regulations as the Commissioner may prescribe in that behalf		Machinery for Mining purposes Bottles of all kinds (empty) Millstones, Grindstones, Oilstones, and Whetstones Plaster of Paris
23	Cocoa Beans Saffron Saltpetre Salt—Rock Tobacco, for Sheepwash, after being rendered unfit for human consumption in accordance with prescribed regulations	27	
		29	
		31	Precious Stones, unset
		32	Brass, in Pigs, Bars, Tubes, or Sheets Tubing and Stamped Work in the rough, for Gasaliers and Brackets Copper, in Pigs, Bars, Tubes, or Sheets Copper and Composition Rod, Bolts, Sheathing, and Nails

IMPORT DUTIES—continued.

Exemptions—continued.

For the position of any article, see Index.

Order.	Articles.	Order.	Articles.
32	Corn Riddles and Sieves Iron—Boiler Plates and end Plates for Boilers „ Chains „ Plain Black Sheet „ Plates, Rivets, Bolts, Nuts, Screws and Castings for Ships „ Rod, Bolt, Bar, Hoop, and Pig „ Rolled Girders „ and Steel Cordage „ Wire, not otherwise enumerated „ „ Netting Lead, in Pigs or Bars Metal Fittings for Portmanteaus, Travelling Bags, and Leggings „ Frames for Bags and Satchels „ Sheaves for Blocks Metallic Capsules Moulds—Glassmakers' Nails for Bellows Rails for Railways and Tramways Rivets and Washers of all kinds Steel Surveyor's Steel Bands Tacks of all kinds Tin—Pig, Bar, or Sheet Wire—Brass, Copper, and Lead Zinc, Plain, sheet	35	Bookbinders' Cloth, Leather, Thread, Headbands, Webbing, End-papers, Tacketing Gut, Marbling Colours, Marble Paper, Blue Paste for Ruling Ink, Staple Presses, Wire Staples, and Staple Sticks Brush Woodware Grindery (except Heel and Toe Plates) Printing Machinery, Presses, Type, and Materials Tinsmith's Fittings and Planished Furniture
		36	Sheep Dip Passengers' Baggage and Effects, including only Wearing Apparel and other Personal Effects that have been worn or are in use by persons arriving in the colony; also Implements, Instruments, and Tools of Trade, Occupation, or Employment of such persons; and Household Effects not exceeding £100 in value, used abroad for more than a year by the persons or families bringing them to the colony, and not intended for any other person or persons or for sale; also Cabin Furnishings belonging to such persons

N.B.—The following are also free from duty :—Articles and Materials (as may from time to time be specified by the Commissioner) which are suited only for and are to be used and applied solely in the fabrication of goods within the colony; and all other articles not otherwise enumerated.

The word “ Iron ” where used in this schedule includes Steel or Steel and Iron combined

EXPORT DUTY.

	£	s.	d.
Order 31.—Gold, of 20 carats fineness and upwards per oz.	0	2	0
(And in the same proportion if of a less degree of fineness than 20 carats.)			

EXCISE.*

	£	s.	d.
Order 23.—Tobacco per lb.	0	1	0
„ Cigars, Cigarettes, and Snuff „	0	1	6

* From the 1st January, 1889, to the 31st December, 1891.

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END OF VOLUME II.

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	ON 31st DECEMBER.										Area sold.	Amount Realised.		Horses.	Cattle.	Sheep.	Pigs.	Number of Post Offices.	Number of Letters.	Number of Newspapers.		
	Persons.	Males.	Females.																			
1836	224	186	38	1	3	...	...	...	6,071	2,165	...	...	50	75	...	41,332	...	...	...	...
1837	1,654	1,308	346	...	...	...	...	...	5,874	2,584	...	...	...	...	...	...	...	...	1,050	1,355
1838	5,111	3,680	1,431	28	20	...	...	...	40,020	16,874	38,694	33,977	...	...	...	13,272	...	...	1,454	2,795
1839	5,822	4,104	1,718	142	67	...	...	...	74,698	35,849	38,280	70,939	...	...	...	1,574	...	...	1,606	3,049
1840	10,291	7,254	3,037	358	177	...	...	...	79,120	39,591	40,308	81,030	...	...	...	3,784	...	...	31,163	70,240
1841	20,416	14,391	6,025	618	319	...	...	6,908	939	152,826	201,261	49,311	4,881	...	...	...	56,704	180,227	...	...
1842	39,799	27,591	12,208	1,025	413	...	...	1,194	87,296	124,631	166,998	21,085	8,124	...	...	109,799	1,404,333	...	...	...
1843	46,103	32,419	13,684	1,137	415	...	...	1,685	126,511	151,741	182,072	169,159	...	...	...	1,615,411	...	...	151,407	...
1844	54,734	37,626	17,108	1,336	540	...	...	2,648	143,318	169,013	181	985	...	...	7,095	187,873	1,806,912	...	...	...
1845	60,231	40,664	19,567	1,531	537	...	...	4,335	191,939	43,241	3,685	18,718	25,134	9,289	23,102	1,794,527	3,986	14	127,168	159,608
1846	38,334	23,531	14,803	1,596	388	3,676	1,775	56,347	51,095	4,601	990,439	2,999,902	5,015	16	139,492	204,640	
1847	49,036	34,004	15,032	1,661	404	3,588	1,293	71,460	63,989	4,849	1,384	2,989,196	5,015	16	177,381	249,919	
1848	51,291	35,607	15,684	1,789	405	3,215	1,069	144,764	140,250	7,345	31,760	40,279	16,035	368,688	5,130,277	5,659	47	209,798	310,004	
1849	66,220	39,530	26,691	1,913	593	1,618	1,929	220,385	146,250	27,610	70,140	45,076	10,743	346,82	5,337,007	9,293	30	261,356	322,708	
1850	76,162	45,495	30,667	2,073	780	2,043	2,596	304,433	196,449	40,042	30,070	58,381	11,781	378,860	5,769,379	9,260	40	295,041	367,819	
1851	97,489	58,235	39,254	2,490	1,165	1,543	3,706	391,455	410,864	51,707	20,840	57,472	22,028	399,923	6,559,923	7,372	44	394,425	456,741	
1852	168,231	110,833	57,396	3,759	1,615	1,058	94,064	31,038	1,634,444	97,982	31,201	67,103	36,771	34,081	43,380	5,784,413	8,296	44	977,176	720,837
1853	231,307	150,825	80,482	5,043	2,241	2,783	99,312	44,341	3,255,546	283,928	1,545,441	34,816	15,466	41,139	5,594,420	2,035,990	1,618,769	
1854	312,307	205,659	106,648	5,734	2,601	...	...	2,405	124,075	4,185,705	405,676	1,537,955	54,909	47,028	48,460	5,337,007	9,293	...	2,674,380	2,204,941
1855	394,234	254,429	139,804	7,147	3,063	...	...	2,395	172,755	2,726,656	621,607	1,548,511	115,135	33,040	53,413	4,477,872	20,686	...	2,999,992	2,349,616
1856	397,560	255,827	141,733	7,434	3,048	...	...	2,187	207,496	2,668,834	437,562	790,318	179,083	47,832	46,645	4,661,548	52,227	125	3,320,614	2,906,141
1857	459,135	301,482	157,653	8,384	3,499	...	...	2,401	338,301	2,668,058	500,960	1,057,450	237,759	55,081	64,537	4,766,024	43,924	128	3,999,681	2,981,070
1858	504,510	333,176	171,333	9,401	4,051	...	...	2,595	408,000	3,087,896	551,744	1,184,843	181,484	68,121	70,939	5,784,413	37,758	130	4,380,880	3,258,000
1859	550,802	358,708	192,094	10,521	4,469	...	...	2,739	373,715	3,261,104	450,082	814,164	158,728	68,001	68,534	7,794,505	50,167	140	4,646,288	3,651,403
1860	571,347	375,647	195,699	11,361	4,857	...	...	2,689	412,000	3,393,947	468,338	903,418	419,380	76,326	72,832	5,780,896	61,939	311	8,116,382	5,665,023
1861	541,800	341,274	200,526	12,641	5,032	...	...	2,588	469,121	3,992,021	514,745	623,588	430,935	84,057	68,092	6,239,238	43,480	359	6,100,929	4,777,179
1862	554,338	344,107	210,231	13,391	5,245	...	...	2,566	476,000	4,049,469	546,939	660,969	456,466	90,769	75,272	4,143,384	49,515	374	6,775,413	4,909,919
1863	579,159	370,247	208,912	14,230	5,407	...	...	2,534	500,000	4,534,467	574,000	700,000	470,000	100,000	100,000	4,772,000	57,955	437	6,639,299	5,000,000
1864	601,343	385,218	216,125	15,087	5,889	...	...	2,538	536,150	4,289,903	280,903	552,602	479,463	117,181	60,000	5,826,334	113,350	455	6,769,244	5,671,545
1865	621,095	399,871	221,224	15,915	6,161	...	...	2,529	569,000	4,577,777	316,777	581,667	477,777	127,777	127,777	6,000,000	113,350	455	6,800,000	5,671,545
1866	636,082	403,712	232,370	16,800	6,500	...	...	2,518	597,000	4,777,777	322,222	621,222	529,000	131,222	131,222	6,000,000	113,350	455	6,800,000	5,671,545
1867	651,471	409,873	241,598	17,638	6,912	...	...	2,512	626,312	4,912,312	321,312	612,312	512,312	140,312	140,312	6,000,000	113,350	455	6,800,000	5,671,545
1868	674,014	425,341	248,673	18,487	7,407	...	...	2,508	658,558	5,158,558	339,558	639,558	539,558	149,558	149,558	6,000,000	113,350	455	6,800,000	5,671,545
1869	699,790	441,314	258,476	19,330	7,905	...	...	2,503	693,754	5,433,754	353,754	653,754	553,754	153,754	153,754	6,000,000	113,350	455	6,800,000	5,671,545
1870	726,599	469,755	256,844	20,181	8,403	...	...	2,500	721,883	5,682,883	357,883	657,883	557,883	157,883	157,883	6,000,000	113,350	455	6,800,000	5,671,545
1871	747,412	490,884	256,528	21,038	8,901	...	...	1,691,266	1,754,251	378,516	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072	
1872	769,135	502,617	266,518	21,900	9,381	...	...	1,754,251	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072			
1873	774,039	510,523	263,516	22,761	9,797	...	...	1,754,251	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072			
1874	783,474	518,346	265,128	23,600	10,240	...	...	1,754,251	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072			
1875	791,209	525,079	266,130	24,439	10,719	...	...	1,754,251	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072			
1876	801,717	534,838	266,879	25,279	11,180	...	...	1,754,251	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072			
1877	815,494	543,376	272,118	26,118	11,641	...	...	1,754,251	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072			
1878	827,439	551,901	275,538	26,967	12,102	...	...	1,754,251	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072			
1879	840,000	560,000	280,000	27,816	12,591	...	...	1,754,251	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072			
1880	860,007	570,000	290,000	28,661	13,081	...	...	1,754,251	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072			
1881	880,218	580,491	299,727	29,510	13,571	...	...	1,754,251	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072			
1882	900,222	590,972	309,250	30,359	14,061	...	...	1,754,251	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072			
1883	920,226	600,976	319,250	31,208	14,551	...	...	1,754,251	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072			
1884	940,045	620,979	319,066	32,067	15,041	...	...	1,754,251	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072			
1885	971,145	641,983	329,162	32,926	15,511	...	...	1,754,251	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072			
1886	1,003,043	673,991	329,052	33,785	16,001	...	...	1,754,251	378,516	119,320	181,643	799,500	10,000,385	17,447	706	11,216,166	5,187,072			
1887	1,035,119	695,068	340,051																			

SHIPPING.				VESSELS BUILT.				VESSELS REGISTERED.				MORTGAGES AND LIENS.				IMPORTS.				IMPORTS OF EXPORTS.				EXPORTS OF EXPORTS.				YEAR.			
Inwards.		Outwards.		No.		Tons.		No.		Tons.		No.		Tons.		Number.		Total Value.		Broadwheat (Wheat, Flour, Ryeat, and Linseed).		Wool.*		Hides and Skins.		Broadwheat (Wheat, Flour, Ryeat, and Linseed).					
Tons.	Value.	Tons.	Value.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	No.	Tons.	Number.	Total Value.	Quantity.	Value.	Total Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.			
140	12,754	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1836
141	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1837
142	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1838
143	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1839
144	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1840
145	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1841
146	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1842
147	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1843
148	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1844
149	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1845
150	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1846
151	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1847
152	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1848
153	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1849
154	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1850
155	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1851
156	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1852
157	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1853
158	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1854
159	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1855
160	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1856
161	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1857
162	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1858
163	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1859
164	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1860
165	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1861
166	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1862
167	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1863
168	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1864
169	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1865
170	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1866
171	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1867
172	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1868
173	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1869
174	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1870
175	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1871
176	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1872
177	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1873
178	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1874
179	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1875
180	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1876
181	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1877
182	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1878
183	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1879
184	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1880
185	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1881
186	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1882
187	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1883
188	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1884
189	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1885
190	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1886
191	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1887
192	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1888
193	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1889
194	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639	2,240	...	22	...	...	1890
195	13,434	140	13,434	...	...	...	...	...	...	...	...	...	...	...	...	...	115,379	9,738	3,619	12,178	175,081	11,639						

SUMMARY OF THE AGRICULTURAL STATISTICS

Year.	Total Area Cultivated.	Area under each description of Tillage.																				
		Wheat.	Oats.	Barley.	Maize.	Rye.	Pease and Beans.	Potatoes.	Turnips.	Mangel-wurzel.	Beet, Carrots, Parsnips.	Onions.	Hay.	Green Forage.	Chicory.	Grass and Clover Seeds.	Hops.	Tobacco.	Vines.	Other Crops.	Gardens and Orchards.	Land in Fallow.
	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.	acres.
1836	50	50	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1837	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1838	149½	82½	22½	...	20	...	...	20	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1839	2,069	1,302	252	161	140	22	...	192	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1840	3,210	1,940	820	300	...	...	...	150	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1841	4,881	1,702	1,285	353	82	5	...	932	...	...	...	...	450	...	...	...	...	72	...	...	...	...
1842	8,124½	2,432	2,410	761	68	...	...	1,419	...	...	...	...	850	171	...	...	...	10	3½	...	...	...
1843	12,072½	4,674	2,560	1,063	77½	...	...	2,069	...	...	...	...	1,622	...	...	...	...	3	4	...	...	...
1844	16,529½	6,919½	3,082½	1,630½	106½	...	2	2,487	...	...	...	...	1,772½	509½	...	...	...	2½	10½	...	...	...
1845	25,133½	11,466½	4,817	749	76½	...	...	2,041½	...	...	...	...	5,000	945	...	...	...	½	37½	...	...	...
1846-7	31,578½	15,802	6,099	1,691½	121½	...	I	2,140½	...	...	...	...	4,547	1,098	...	...	...	...	78	...	...	...
1847-8	36,289½	17,679½	7,173	2,161½	130½	...	I	2,638½	...	...	...	...	5,073½	1,330½	...	...	...	...	101½	...	...	...
1848-9	40,279½	19,379½	8,289	2,579½	148	...	...	2,577½	...	...	...	...	5,903	1,287	...	...	...	...	107½	...	...	...
1849-50	45,975½	24,247	5,379½	2,303½	28½	...	...	2,151	...	...	...	...	11,180½	519½	...	...	...	½	164½	...	...	...
1850-51	52,340½	28,510½	5,007½	2,101½	24½	...	...	2,837½	...	...	...	...	13,567	130	...	...	...	...	161½	...	...	...
1851-2	57,472	29,623½	6,426½	1,327½	11	4	...	2,375½	...	...	...	...	16,822	708½	...	...	...	...	173½	...	...	...
1852-3	36,771½	16,823	2,947½	411½	I	...	...	1,978½	...	...	...	...	14,101½	401½	...	...	...	...	107½	...	...	...
1853-4	34,816½	7,553½	2,289	411	19½	13	...	1,636½	...	...	...	...	21,829½	891	...	...	...	11½	162½	...	...	...
1854-5	54,905	12,827	5,341	691	35½	18	5	3,297½	...	...	...	...	31,514	958½	...	...	...	37	180½	...	...	...
1855-6	115,135½	42,686	17,800	1,548½	121½	...	84½	11,017½	355½	17½	22½	38½	40,188½	1,025	...	...	...	23	207½	...	...	...
1856-7	179,982½	80,154½	25,024½	2,233½	326½	...	...	16,281½	512½	108½	64½	24½	51,987	969½	...	...	...	76½	279½	...	1,939½	...
1857-8	237,728½	87,230	40,222½	5,409	445½	...	132½	20,697½	355	119	63½	...	75,536	2,074½	...	...	...	71	401½	4	4,967½	...
1858-9	298,959½	78,234	77,526½	5,322	480	57½	264½	30,026½	332	185½	175½	...	86,162½	7,409	...	...	...	66½	547½	288½	5,883½	5,998½
1859-60	358,727½	107,092½	90,167½	4,101½	738	149	395½	27,622	220½	382½	296½	...	98,570½	10,350½	...	...	...	50	811	369	6,186½	11,224½
1860-61	419,380½	161,251½	86,337½	4,123½	1,650	111½	662	24,841½	494½	1,029	733½	...	90,920½	17,660½	...	...	...	91	1,138	579½	7,298½	20,457½
1861-2	439,895	196,922	91,061	3,419	1,714	66	696	27,174	187	806	430	249	74,681	16,692	...	...	...	220	1,464	333	6,946	16,835
1862-3	465,430	162,008½	108,195½	6,829½	1,249½	148½	1,261½	24,820½	196½	806½	591½	142½	101,639½	28,712½	...	...	...	508½	2,006½	247½	7,724	18,341½
1863-4	507,798	149,392	152,326	7,795	1,711	207	975	27,584	104	836	431	157	96,350	35,342	...	...	...	623	3,076	389	8,282	22,218
1864-5	479,463	125,040	144,303	7,648	597	419	2,783	31,172	102	849	464	120	85,146	40,061	...	...	...	524	3,594	1,264	8,988	26,389
1865-6	530,196	178,628	102,817	6,887	326	551	4,253	31,644	96	1,249	505	183	97,902	58,830	...	...	...	397	4,078	1,705	10,113	33,042
1866-7	592,915	208,588	129,284	9,915	1,627	1,973	4,884	32,403	158	1,924	808	340	92,472	64,174	...	...	...	243	4,111	156	9,655	31,000
1867-8	631,207	216,989	125,345	15,982	579	1,376	3,658	35,831	114	1,269	695	245	108,373	69,372	145	454	9	229	4,340	147	12,603	33,452
1868-9	712,865	259,804	114,936	19,222	863	2,386	3,719	36,204	157	1,321	1,397	240	112,282	87,403	99	42	3	138	4,046	149	11,856	56,598
1869-70	827,534	288,514	144,791	28,115	1,080	4,275	3,989	41,216	164	1,526	2,162	329	140,435	102,530	199	146	78	144	4,950	87	13,432	49,372
1870-71	909,015	284,167	149,309	19,646	1,014	1,168	4,366	39,026	277	957	1,609	287	163,181	153,852	220	242	64	93	5,466	24	14,856	69,191
1871-2	937,220	334,609	175,944	16,772	1,709	663	8,832	39,064	174	1,396	1,612	461	103,206	150,775	198	308	61	299	5,523	397	15,633	79,584
1872-3	963,091	326,564	125,505	21,251	1,910	712	13,368	38,517	251	1,739	2,271	417	121,375	209,289	60	2,359	107	423	5,485	102	15,785	75,601
1873-4	964,996	349,976	110,991	25,333	1,959	722	14,229	38,349	175	1,252	1,143	270	115,672	213,069	43	2,717	131	583	5,222	111	16,060	66,989
1874-5	1,011,776	332,936	114,921	29,505	1,523	1,096	16,170	35,183	241	1,281	721	347	119,031	254,329	109	3,082	126	733	4,937	193	17,400	77,912
1875-6	1,126,831	321,401	124,100	31,568	2,346	1,292	18,554	36,901	284	1,223	807	552	155,274	308,405	177	2,234	145	782	5,081	511	17,761	97,133
1876-7	1,231,105	401,417	115,209	25,034	1,609	1,153	21,235	40,450	224	1,285	571	720	147,408	362,554	225	1,993	225	1,479	4,765	749	18,641	84,159
1877-8	1,420,502	564,564	105,234	19,116	1,215	1,075	17,286	37,107	315	1,320	470	816	176,951	390,330	256	1,846	274	2,327	4,419	336	19,570	75,675
1878-9	1,609,278	691,622	134,428	22,871	1,939	1,779	15,153	36,527	310	888	402	1,069	172,799	401,427	155	2,824	203	1,936	4,434	443	20,400	97,669
1879-80	1,688,275	707,188	167,615	43,182	2,447	1,236	21,462	41,600	192	1,027	374	1,040	201,451	305,790	392	2,237	267	531	4,284	507	20,299	165,154
1880-81	1,997,943	977,285	134,089	68,630	1,769	1,569	23,378	45,951	460	1,284	348	1,056	249,656	264,611	230	2,817	428	1,990	4,980	984	22,288	194,140
1881-2	1,821,719	926,729	146,995	48,652	1,783	972	25,937	39,129	151	1,044	286	1,134	212,150	241,947	207	2,061	564	1,461	4,923	638	20,630	144,326
1882-3	2,040,916	969,362	169,892	43,721	2,702	1,137	26,832	34,267	125	1,087	433	1,341	309,382	290,438	283	2,290	1,034	1,313	5,732	518	19,725	159,302
1883-4	2,215,923	1,104,392	188,161	46,832	2,570	1,260	30,443	40,195	148	1,056	424	1,235	302,957	286,866	283	2,686	1,758	1,325	7,326	645	20,754	174,607
1884-5	2,323,493	1,096,354	187,710	62,273	3,854	939	35,288	38,763	209	1,413	455	1,750	339,725	332,859	219	2,329	1,737	1,402	9,042	960	23,015	183,197
1885-6	2,405,157	1,020,082	215,994	74,112	4,530	654	35,460	42,602	253	1,346	386	1,740	421,036	334,399	216	2,942	896	1,866	9,775	1,022	25,395	210,451
1886-7	2,417,582	1,052,685	185,705	37,031	4,901	762	28,672	49,974	443	1,257	467	1,996	445,150	284,186	204	4,667	730	2,031</				

* In 1863-4, 1864-5, and 1878-9, the yield of wheat was much affected by "rust."

OF VICTORIA FROM 1836 TO 1888-9 INCLUSIVE.

Produce Raised.																				Year.	
Wheat.	Oats.	Barley.	Maize.	Rye.	Pease and Beans	Potatoes.	Turnips.	Mangel-wurzel.	Beet, Carrots, Parsnips, etc.	Onions.	Hay.	Chicory.	Grass and Clover Seeds.	Hops.	Tobacco.	Grapes not made into Wine.	Grapes made into Wine.	Wine made.	Brandy made.		
bushels.	bushels.	bushels.	bushels.	bushels.	bushels.	tons.	tons.	tons.	tons.	cwt.	tons.	tons.	bushels.	cwt.	owt.	owt.	ewt.	galls.	galls.		
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1836
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1837
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1838
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1839
12,600	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1840
50,420	26,950	9,000	...	...	...	300	...	...	...	...	...	...	...	...	...	...	...	...	...	1841
47,840	37,325	9,385	1,200	...	...	3,734	...	...	...	...	900	...	...	...	1,440	...	...	...	...	1842
55,360	66,100	20,025	1,360	...	...	5,996	...	...	...	...	2,300	...	...	...	10	...	...	...	...	1843
104,040	70,789	25,156	...	...	...	6,933	...	...	...	...	2,661	...	...	...	10	...	...	...	...	1844
138,436	43,361	40,080	3,290	...	34	12,418	...	...	...	...	6,459	...	...	...	35	20	...	100	...	1845
234,734	71,368	39,289	1,980	...	...	11,138	...	...	...	...	9,640	...	...	...	...	163	...	214	...	1846-7
345,946	185,856	47,737	3,330	...	20	9,024	...	...	...	...	9,303	...	...	...	...	1,993	...	2,600	...	1847-8
349,730	207,385	29,115	3,630	...	20	7,255	...	...	...	...	9,891	...	...	...	...	1,863	...	1,300	30	1848-9
410,220	78,877	36,403	3,928	...	...	11,988	...	...	...	...	10,625	...	...	...	...	3,020	...	6,306	100	1849-50
525,190	129,602	53,913	235	...	...	5,929	...	...	...	...	15,640	...	...	...	6	...	...	5,220	515	1850-51
556,167	99,535	40,144	4	...	...	5,613	...	...	...	...	20,971	...	...	...	...	...	...	4,621	286	1851-2
733,321	132,311	34,331	586	5	...	5,988	...	...	...	...	29,692	...	...	...	...	...	...	6,447	450	1852-3
498,704	96,980	9,431	61	...	...	4,512	...	...	...	...	21,287	...	...	...	...	...	...	4,500	500	1853-4
154,202	50,787	10,269	60	200	...	2,752	...	...	...	...	33,918	...	...	...	...	85	596	9,680	...	1854-5
250,091	130,746	14,339	387	...	100	8,383	...	...	...	...	53,627	...	...	...	...	60	1,665	9,600	100	1855-6
148,011	614,614	45,151	3,142	...	2,377	59,797	2,909	610	60	2,905	83,285	...	...	...	...	331	4,365	9,372	...	1856-7
858,756	641,679	69,548	8,308	...	...	36,895	5,073	2,165	308	1,685	81,151	...	...	...	...	651	6,353	10,936	340	1857-8
808,439	1,249,800	156,459	6,558	...	2,797	51,116	1,684	2,876	268	...	137,476	...	...	...	...	717	4,629	5,761	...	1858-9
563,113	2,160,358	115,619	9,698	651	4,833	108,467	1,335	2,157	674	2,690	113,543	...	...	...	...	873	3,579	7,740	73	1859-60
296,157	2,553,637	98,433	7,375	2,692	5,590	48,967	674	4,645	1,099	1,029	135,643	...	...	...	...	463	4,473	13,966	150	1860-61
4,459,914	2,633,693	83,854	25,045	11,973	77,258	2,276	13,446	4,129	26,189	2,276	144,211	...	...	...	...	1,257	7,979	12,129	220	1861-2
6,607,727	2,136,430	68,118	20,788	1,245	11,050	59,364	1,120	6,142	2,676	6,262	92,497	...	...	...	...	2,552	16,972	47,568	79	1862-3
9,008,487	2,504,301	143,056	19,720	1,853	17,404	50,597	1,456	8,086	4,313	6,548	110,680	...	...	...	...	4,324	16,345	91,893	28	1863-4*
3,338,762*	3,497,520	130,664	33,534	3,408	16,471	74,947	627	8,741	4,761	9,895	121,840	5,913	15,656	16,954	120,894	10	1864-5*
899,378*	2,694,445	124,849	3,980	5,549	41,139	59,828	596	5,782	2,279	8,083	97,731	3,450	13,027	16,160	110,042	225	1865-6
5,514,227	2,279,468	153,490	4,767	8,555	60,068	83,196	435	11,763	2,870	9,206	96,101	3,328	18,063	31,686	176,959	795	1866-7
3,641,205	3,880,406	299,217	27,520	36,155	59,941	88,880	1,099	17,473	5,716	31,266	161,243	2,915	17,264	43,395	284,118	46	1867-8
3,411,663	2,333,472	324,706	11,345	19,241	51,591	117,787	972	16,731	6,645	23,959	140,592	542	5,029	11	2,070	31,459	61,971	459,072	1,795	1868-9	
3,229,228	2,258,523	292,665	17,048	29,539	42,333	79,944	964	10,295	5,663	12,084	122,800	493	615	1	1,747	25,574	65,553	448,547	2,025	1869-70	
6,697,056	3,761,408	691,248	22,141	65,822	67,624	127,645	1,234	16,217	13,855	35,818	224,816	1,010	2,247	83	1,290	24,980	85,205	577,287	878	1870-71	
3,870,409	2,237,010	240,825	20,028	14,856	73,449	127,579	2,206	10,521	8,157	32,900	183,708	1,349	2,652	318	467	26,296	98,642	629,219	73	1871-2	
3,500,795	3,299,889	335,506	30,833	8,496	173,217	125,841	1,500	19,703	7,890	83,180	144,637	1,207	4,785	329	2,307	30,896	106,791	713,589	1,579	1872-3	
3,391,104	2,454,225	443,221	37,703	9,350	236,582	132,997	1,621	23,475	16,605	66,940	159,964	281	30,502	543	1,837	19,338	85,623	527,592	2,007	1873-4	
3,752,289	1,741,451	502,601	40,347	7,979	199,041	109,822	1,006	14,475	6,072	23,300	147,398	245	32,204	744	3,694	20,371	85,279	562,713	100	1874-5	
3,850,165	2,121,612	619,896	24,263	15,620	317,382	124,310	1,901	17,899	3,887	55,880	157,261	531	35,998	899	6,839	19,999	90,988	577,493	148	1875-6	
3,978,914	2,719,795	700,665	37,177	19,356	450,948	124,377	2,668	16,795	4,268	95,600	206,613	652	34,194	1,012	501†	21,211	123,650	755,000	256	1876-7	
3,279,730	2,294,225	530,323	25,909	15,277	373,857	134,082	1,769	15,386	3,430	71,580	180,560	980	29,229	1,153	14,413	15,900	85,111	481,588	3,725	1877-8	
3,018,257	2,040,486	378,706	22,050	9,852	241,007	115,419	2,346	15,465	2,272	61,100	208,151	1,333	28,840	1,954	15,827	13,807	73,722	457,535	840	1878-9*	
3,060,737*	2,366,026	417,157	40,754	20,816	248,436	98,958	1,349	8,275	1,272	72,000	209,028	653	34,432	1,168	15,662	10,818	61,835	410,333	1,561	1879-80	
3,398,858	4,023,271	1,065,430	61,887	18,407	574,954	167,943	2,054	14,897	2,504	146,940	292,407	1,764	32,031	2,540	1,297†	16,270	89,890	574,143	3,284	1880-81	
3,727,369	2,362,425	1,068,830	49,299	13,978	403,321	129,262	1,932	12,640	2,403	99,580	300,581	960	26,320	2,744	17,333	24,817	79,045	484,028	3,038	1881-2	
3,714,377	3,612,111	927,566	81,007	12,653	621,768	134,290	1,713	14,989	2,737	203,800	238,793	781	32,085	4,045	12,876	14,806	78,512	539,191	1,453	1882-3	
3,751,454	4,446,027	758,477	131,620	23,244	689,507	129,605	901	16,656	3,281	165,600	327,385	1,209	28,740	9,243	5,673	15,543	74,874	516,763	3,377	1883-4	
3,570,245	4,717,624	1,069,803	117,294	16,727	791,093	161,088	1,402	18,906	3,874	139,540	433,143	1,626	41,964	15,717	9,124	22,402	106,925	723,560	2,646	1884-5	
3,433,146	4,392,695	1,082,430	176,388	15,505	846,859	161,119	1,600	21,935	3,872	236,320	371,046	1,309	35,559	14,053	7,893	19,758	120,468	760,752	3,623	1885-6	
3,170,538	4,692,303	1,302,854	181,240	8,278	761,351	163,202	2,179	24,129	4,300	204,180	442,118	1,239	39,793	5,501	13,734	39,651	158,354	1,003,827	3,875	1886-7	
3,100,036	4,256,079	827,852	231,447	11,286	583,269	170,661	2,767	19,142	4,411	232,500	483,049	1,472	61,490	5,023	12,008	33,334	155,443	980,041	3,233	1887-8	
3,328,765	4,562,530	956,476	318,551	14,900	732,060	198,225	4,102	20,590	4,672	235,480	624,122	1,375	61,177	5,405	11,853	42,389	178,154	1,167,874	3,352	1888-9	
3,647,709	2,803,800	1,131,427	267,155	10,744	361,724	131,149	4,560	13,974	2,250	88,600	308,117	811	17,444	5,519	13,355	48,712	179,036	1,209,442	2,994		

† The tobacco crop in 1875-6 and 1879-80 failed in most parts of the colony.

HENRY HEVLYN HAYTER, Government Statist.

	1870	1871/2	1872	1873/4	1874/5	1875/6	1876/7	1877/8	1878/9	1879/80	1880/1	1881/2	1882/3	1883/4	1884/5	1885/6	1886/7	1887/8	1888/9	1889/90	1890/1	1891/2	1892/3	1893/4	1894/5	1895/6	1896/7	1897/8	1898/9	1899/0	1900/1	1901/2	1902/3	1903/4	1904/5	1905/6	1906/7	1907/8	1908/9	1909/0	1910/1	1911/2	1912/3	1913/4	1914/5	1915/6	1916/7	1917/8	1918/9	1919/0	1920/1	1921/2	1922/3	1923/4	1924/5	1925/6	1926/7	1927/8	1928/9	1929/0	1930/1	1931/2	1932/3	1933/4	1934/5	1935/6	1936/7	1937/8	1938/9	1939/0	1940/1	1941/2	1942/3	1943/4	1944/5	1945/6	1946/7	1947/8	1948/9	1949/0	1950/1	1951/2	1952/3	1953/4	1954/5	1955/6	1956/7	1957/8	1958/9	1959/0	1960/1	1961/2	1962/3	1963/4	1964/5	1965/6	1966/7	1967/8	1968/9	1969/0	1970/1	1971/2	1972/3	1973/4	1974/5	1975/6	1976/7	1977/8	1978/9	1979/0	1980/1	1981/2	1982/3	1983/4	1984/5	1985/6	1986/7	1987/8	1988/9	1989/0	1990/1	1991/2	1992/3	1993/4	1994/5	1995/6	1996/7	1997/8	1998/9	1999/0	2000/1	2001/2	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9	2009/0	2010/1	2011/2	2012/3	2013/4	2014/5	2015/6	2016/7	2017/8	2018/9	2019/0	2020/1	2021/2	2022/3	2023/4	2024/5	2025/6	2026/7	2027/8	2028/9	2029/0	2030/1	2031/2	2032/3	2033/4	2034/5	2035/6	2036/7	2037/8	2038/9	2039/0	2040/1	2041/2	2042/3	2043/4	2044/5	2045/6	2046/7	2047/8	2048/9	2049/0	2050/1	2051/2	2052/3	2053/4	2054/5	2055/6	2056/7	2057/8	2058/9	2059/0	2060/1	2061/2	2062/3	2063/4	2064/5	2065/6	2066/7	2067/8	2068/9	2069/0	2070/1	2071/2	2072/3	2073/4	2074/5	2075/6	2076/7	2077/8	2078/9	2079/0	2080/1	2081/2	2082/3	2083/4	2084/5	2085/6	2086/7	2087/8	2088/9	2089/0	2090/1	2091/2	2092/3	2093/4	2094/5	2095/6	2096/7	2097/8	2098/9	2099/0	2100/1	2101/2	2102/3	2103/4	2104/5	2105/6	2106/7	2107/8	2108/9	2109/0	2110/1	2111/2	2112/3	2113/4	2114/5	2115/6	2116/7	2117/8	2118/9	2119/0	2120/1	2121/2	2122/3	2123/4	2124/5	2125/6	2126/7	2127/8	2128/9	2129/0	2130/1	2131/2	2132/3	2133/4	2134/5	2135/6	2136/7	2137/8	2138/9	2139/0	2140/1	2141/2	2142/3	2143/4	2144/5	2145/6	2146/7	2147/8	2148/9	2149/0	2150/1	2151/2	2152/3	2153/4	2154/5	2155/6	2156/7	2157/8	2158/9	2159/0	2160/1	2161/2	2162/3	2163/4	2164/5	2165/6	2166/7	2167/8	2168/9	2169/0	2170/1	2171/2	2172/3	2173/4	2174/5	2175/6	2176/7	2177/8	2178/9	2179/0	2180/1	2181/2	2182/3	2183/4	2184/5	2185/6	2186/7	2187/8	2188/9	2189/0	2190/1	2191/2	2192/3	2193/4	2194/5	2195/6	2196/7	2197/8	2198/9	2199/0	2200/1	2201/2	2202/3	2203/4	2204/5	2205/6	2206/7	2207/8	2208/9	2209/0	2210/1	2211/2	2212/3	2213/4	2214/5	2215/6	2216/7	2217/8	2218/9	2219/0	2220/1	2221/2	2222/3	2223/4	2224/5	2225/6	2226/7	2227/8	2228/9	2229/0	2230/1	2231/2	2232/3	2233/4	2234/5	2235/6	2236/7	2237/8	2238/9	2239/0	2240/1	2241/2	2242/3	2243/4	2244/5	2245/6	2246/7	2247/8	2248/9	2249/0	2250/1	2251/2	2252/3	2253/4	2254/5	2255/6	2256/7	2257/8	2258/9	2259/0	2260/1	2261/2	2262/3	2263/4	2264/5	2265/6	2266/7	2267/8	2268/9	2269/0	2270/1	2271/2	2272/3	2273/4	2274/5	2275/6	2276/7	2277/8	2278/9	2279/0	2280/1	2281/2	2282/3	2283/4	2284/5	2285/6	2286/7	2287/8	2288/9	2289/0	2290/1	2291/2	2292/3	2293/4	2294/5	2295/6	2296/7	2297/8	2298/9	2299/0	2300/1	2301/2	2302/3	2303/4	2304/5	2305/6	2306/7	2307/8	2308/9	2309/0	2310/1	2311/2	2312/3	2313/4	2314/5	2315/6	2316/7	2317/8	2318/9	2319/0	2320/1	2321/2	2322/3	2323/4	2324/5	2325/6	2326/7	2327/8	2328/9	2329/0	2330/1	2331/2	2332/3	2333/4	2334/5	2335/6	2336/7	2337/8	2338/9	2339/0	2340/1	2341/2	2342/3	2343/4	2344/5	2345/6	2346/7	2347/8	2348/9	2349/0	2350/1	2351/2	2352/3	2353/4	2354/5	2355/6	2356/7	2357/8	2358/9	2359/0	2360/1	2361/2	2362/3	2363/4	2364/5	2365/6	2366/7	2367/8	2368/9	2369/0	2370/1	2371/2	2372/3	2373/4	2374/5	2375/6	2376/7	2377/8	2378/9	2379/0	2380/1	2381/2	2382/3	2383/4	2384/5	2385/6	2386/7	2387/8	2388/9	2389/0	2390/1	2391/2	2392/3	2393/4	2394/5	2395/6	2396/7	2397/8	2398/9	2399/0	2400/1	2401/2	2402/3	2403/4	2404/5	2405/6	2406/7	2407/8	2408/9	2409/0	2410/1	2411/2	2412/3	2413/4	2414/5	2415/6	2416/7	2417/8	2418/9	2419/0	2420/1	2421/2	2422/3	2423/4	2424/5	2425/6	2426/7	2427/8	2428/9	2429/0	2430/1	2431/2	2432/3	2433/4	2434/5	2435/6	2436/7	2437/8	2438/9	2439/0	2440/1	2441/2	2442/3	2443/4	2444/5	2445/6	2446/7	2447/8	2448/9	2449/0	2450/1	2451/2	2452/3	2453/4	2454/5	2455/6	2456/7	2457/8	2458/9	2459/0	2460/1	2461/2	2462/3	2463/4	2464/5	2465/6	2466/7	2467/8	2468/9	2469/0	2470/1	2471/2	2472/3	2473/4	2474/5	2475/6	2476/7	2477/8	2478/9	2479/0	2480/1	2481/2	2482/3	2483/4	2484/5	2485/6	2486/7	2487/8	2488/9	2489/0	2490/1	2491/2	2492/3	2493/4	2494/5	2495/6	2496/7	2497/8	2498/9	2499/0	2500/1	2501/2	2502/3	2503/4	2504/5	2505/6	2506/7	2507/8	2508/9	2509/0	2510/1	2511/2	2512/3	2513/4	2514/5	2515/6	2516/7	2517/8	2518/9	2519/0	2520/1	2521/2	2522/3	2523/4	2524/5	2525/6	2526/7	2527/8	2528/9	2529/0	2530/1	2531/2	2532/3	2533/4	2534/5	2535/6	2536/7	2537/8	2538/9	2539/0	2540/1	2541/2	2542/3	2543/4	2544/5	2545/6	2546/7	2547/8	2548/9	2549/0	2550/1	2551/2	2552/3	2553/4	2554/5	2555/6	2556/7	2557/8	2558/9	2559/0	2560/1	2561/2	2562/3	2563/4	2564/5	2565/6	2566/7	2567/8	2568/9	2569/0	2570/1	2571/2	2572/3	2573/4	2574/5	2575/6	2576/7	2577/8	2578/9	2579/0	2580/1	2581/2	2582/3	2583/4	2584/5	2585/6	2586/7	2587/8	2588/9	2589/0	2590/1	2591/2	2592/3	2593/4	2594/5	2595/6	2596/7	2597/8	2598/9	2599/0	2600/1	2601/2	2602/3	2603/4	2604/5	2605/6	2606/7	2607/8	2608/9	2609/0	2610/1	2611/2	2612/3	2613/4	2614/5	2615/6	2616/7	2617/8	2618/9	2619/0	2620/1	2621/2	2622/3	2623/4	2624/5	2625/6	2626/7	2627/8	2628/9	2629/0	2630/1	2631/2	2632/3	2633/4	2634/5	2635/6	2636/7	2637/8	2638/9	2639/0	2640/1	2641/2	2642/3	2643/4	2644/5	2645/6	2646/7	2647/8	2648/9	2649/0	2650/1	2651/2	2652/3	2653/4	2654/5	2655/6	2656/7	2657/8	2658/9	2659/0	2660/1	2661/2	2662/3	2663/4	2664/5	2665/6	2666/7	2667/8	2668/9	2669/0	2670/1	2671/2	2672/3	2673/4	2674/5	2675/6	2676/7	2677/8	2678/9	2679/0	2680/1	2681/2	2682/3	2683/4	2684/5	2685/6	2686/7	2687/8	2688/9	2689/0	2690/1	2691/2	2692/3	2693/4	2694/5	2695/6	2696/7	2697/8	2698/9	2699/0	2700/1	2701/2	2702/3	2703/4	2704/5	2705/6	2706/7	2707/8	2708/9	2709/0	2710/1	2711/2	2712/3	2713/4	2714/5	2715/6	2716/7	2717/8	2718/9	2719/0	2720/1	2721/2	2722/3	2723/4	2724/5	2725/6	2726/7	2727/8	2728/9	2729/0	2730/1	2731/2	2732/3	2733/4	2734/5	2735/6	2736/7	2737/8	2738/9	2739/0	2740/1	2741/2	2742/3	2743/4	2744/5	2745/6	2746/7	2747/8	2748/9	2749/0	2750/1	2751/2	2752/3	2753/4	2754/5	2755/6	2756/7	2757/8	2758/9	2759/0	2760/1	2761/2	2762/3	2763/4	2764/5	2765/6	2766/7	2767/8	2768/9	2769/0	2770/1	2771/2	2772/3	2773/4	2774/5	2775/6	2776/7	2777/8	2778/9	2779/0	2780/1	2781/2	2782/3	2783/4	2784/5	2785/6	2786/7	2787/8	2788/9	2789/0	2790/1	2791/2	2792/3	2793/4	2794/5	2795/6	2796/7	2797/8	2798/9	2799/0	2800/1	2801/2	2802/3	2803/4	2804/5	2805/6	2806/7	2807/8	2808/9	2809/0	2810/1	2811/2	2812/3	2813/4	2814/5	2815/6	2816/7	2817/8	2818/9	2819/0	2820/1	2821/2	2822/3	2823/4	2824/5	2825/6	2826/7	2827/8	2828/9	2829/0	2830/1	2831/2	2832/3	2833/4	2834/5	2835/6	2836/7	2837/8	2838/9	2839/0	2840/1	2841/2	2842/3	2843/4	2844/5	2845/6	2846/7	2847/8	2848/9	2849/0	2850/1	2851/2	2852/3	2853/4	2854/5	2855/6
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STATISTICS FROM 1873 TO 1888.

[illegible]

Including land in fallow in all the colonies except New South Wales—amounting in 1858, to 352,613 acres in Victoria; 21,015 acres in Queensland; 40,317 acres in South Australia; 40,317 acres in Western Australia; 95,003 acres in Tasmania; and 148,747 acres in New Zealand. The acreage actually sown of New Zealand amounted on the 31st December, 1858, to 41,362,650; the net liability at that date was therefore 236,971,401.